

OTHER TRANSACTION FOR PROTOTYPE AGREEMENT

BETWEEN

GENERAL DYNAMICS LAND SYSTEMS INC.
38500 MOUND ROAD, STERLING HEIGHTS, MI 48310

AND

THE OFFICE OF NAVAL RESEARCH
875 NORTH RANDOLPH STREET, ARLINGTON, VA 22203-2114

Agreement for

ARMORED RECONNAISSANCE VEHICLE (ARV) RESEARCH AREA 2 (RA2) FULL SYSTEM
TECHNOLOGY DEMONSTRATOR

Agreement No.: N00014-19-9-0005

Purchase Requisition No.:

Total Amount of the Agreement: \$24,069,330

Government Funding

Contractor Cost Share

(b) (4)

Funds Obligated:

\$2,088,000

Authority:

10 U.S.C. § 2371b

Effective Date: Date signed by AO

Procurement Request Number:

Contractor Cage Code: 7W356

Contractor Duns Number: 131266926

This Agreement is entered into between the United States of America, hereinafter called the Government, represented by The Office of Naval Research (ONR), and GENERAL DYNAMICS LAND SYSTEMS INC. (GDLS) pursuant to and under U.S. Federal law.

FOR GENERAL DYNAMICS
LAND SYSTEMS INC.

Tisa Laryea Digitally signed by Tisa Laryea
Date: 2019.05.23 16:08:59
-04'00'

(Signature)

Tisa Laryea , Sr Contract Admin 5/23/20

(Name, Title)

(Date)

FOR THE OFFICE OF NAVAL RESEARCH

HALL.VALARIE.I.10221 Digitally signed by HALL.VALARIE.I.1022162507
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI,
ou=USN, cn=HALL.VALARIE.I.1022162507
Date: 2019.05.24 13:52:31 -04'00'

(Signature)

(Name, Title)

(Date)

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ARTICLE I: SCOPE OF THE AGREEMENT**A. Background**

The Effort is as set forth herein and in Attachments 1 through 6 to this Agreement.

B. Scope

1. This Agreement is an “other transaction” pursuant to 10 U.S.C. § 2371b. Its principal purpose is to conduct research and development (R&D) of an ARV Full System Technology Demonstrator.

2. The Performer shall be paid a fixed amount for each milestone accomplished in accordance with the Schedule of Milestones and Payments set forth in Attachment 3 and the procedures of Article IV.

C. Goals / Objectives

1. The goals and objectives of this Agreement are outlined in, Attachment 1 Task Description Document, and Attachment 3 Schedule of Milestones and Payments.

2. The Government will have continuous involvement with the Performer. The Government will obtain access to R&D results and rights in patents and data pursuant to Articles VI and VII.

ARTICLE II: TERM**A. Term of this Agreement**

The Effort commences upon the effective date of this Agreement.

The base Effort, which consists of CLINs 0001 through 0014 (see Attachment 3), shall be completed within twenty-three (23) months of the effective date. The base Effort includes authorized pre-award effort (CLIN 0001) performed on or after 29 January 2019 up to the Agreement’s effective date.

The Effort includes four options: two additional six-month Technology Demonstrator Testing Support periods (Option Period 1, CLINs 1001-1003; Option Period 2, CLINs 2001-2003) and two additional Blast Hulls (Hull # 3, CLINs 3001 and 3002; Hull #4, CLINs 4001 and 4002). The Government may, in its sole discretion, unilaterally exercise any or all options as follows:

Technology Demonstrator Testing Support Option Period 1 (1 April 2021 to 30 September 2021): no less than three weeks prior to 31 March 2021, the expiration of the six-month support period under the base Effort (CLINs 0012-0014).

Technology Demonstrator Testing Support Option Period 2 (1 October 2021 to 31 March 2022): no less than three weeks prior to the expiration of Technology Demonstrator Testing Support Option Period 1.

Optional Blast Hull #3: any time before the expiration of the performance period of the base effort and any exercised Technology Demonstrator Testing Support option periods. The Hull shall be delivered no later than eight months after option exercise.

Optional Blast Hull #4: any time before the expiration of the performance period of the base effort and any exercised Technology Demonstrator Testing Support option periods or any time before delivery of Optional Blast Hull #3, whichever is later. The Hull shall be delivered no later than eight months after option exercise.

Exercise of an option for an Optional Blast Hull or delivery of an Optional Blast Hull beyond the performance period of the base Effort and any exercised Technology Demonstrator Testing Support option periods will not affect the enforceability of all terms of this Agreement. Unless specifically provided otherwise, all terms and conditions of this Agreement shall be considered extended and to apply.

Options shall be exercised by the AO through a written unilateral modification to this Agreement.

B. Termination Provisions

Subject to a reasonable determination that the Effort will not produce beneficial results, either Party may terminate this Agreement by written notice to the other Party, provided that such written notice is preceded by consultation between the Parties. In the event of a termination of this Agreement, it is agreed that disposition of Data developed under this Agreement shall be in accordance with the provisions set forth in Article VII, Data Rights. The Government and the Performer will negotiate in good faith a reasonable and timely adjustment of all outstanding issues between the Parties as a result of termination. Failure of the Parties to agree to a reasonable adjustment will be resolved pursuant to Article V, Disputes.

The Government has no obligation to pay the Performer beyond the last completed and paid milestone if the Performer decides to terminate.

C. Extending the Term

The Parties may extend, by mutual written agreement, the term of this Agreement if research opportunities from the objectives set forth in Article I reasonably warrant. Any extension shall be formalized through modification of the Agreement by the Agreements Officer ("AO") and the Performer Administrator.

ARTICLE III: MANAGEMENT OF THE PROJECT

A. Effort Management and Structure

The Performer shall be responsible for the overall technical and program management, technical planning and execution of the Effort. The ONR Agreements Officer's Representative ("AOR"), in consultation with the ONR Project Officer ("PO"), will be responsible for the review and verification of the completed milestones and may engage in technical collaboration and provide input concerning the Effort. The AOR and PO are not authorized to agree orally or in writing to any modifications to this Agreement or in any way obligate the payment of money by the Government. Only the AO is authorized to agree to or make modifications to this Agreement.

B. Modifications

1. Recommendations for modifications, including justifications to support any changes to the Scope of Work, and prospective completed milestones (Attachment 3), will be documented in a letter and submitted by the Performer to the ONR PO, AOR and AO. This documentation will detail the technical, chronological, and financial impact of the proposed modification to the research Effort. The ONR AO and the Performer shall approve any Agreement modification. The Government is not obligated to pay for additional or revised future milestones until the Schedule of Milestones and Payments (Attachment 3) is revised in writing by the ONR AO and made part of this Agreement.

2. Administrative Agreement modifications (e.g., incremental funding, changes in the paying office or appropriation data, changes to Government or the Performer's personnel identified in the Agreement) require no signature by the Performer.

3. The ONR AO will be responsible for issuing all modifications to this Agreement.

ARTICLE IV: OBLIGATION AND PAYMENT

A. Obligation

1. The Government's liability to make payments to the Performer is limited to only those funds obligated under the Agreement or by modification to the Agreement as set forth in the table below. The Government shall fund each CLIN set forth in Attachment 3 no later than the last day of the previous milestone (with the exception of CLINs 0001, 0002, and 0003, which will be funded on the effective date of this Agreement, and CLINS 1001, 2001, 3001, and 4001, which will be funded at the time the option is exercised). The Government intends to fully fund each milestone, but reserves the right to incrementally fund milestones. Should the Government incrementally fund a milestone, the Government will provide the Performer a funding schedule.

2. The Performer shall not perform work in the absence of sufficient Government funds to support the effort. Should the Government fail to timely fund a milestone or increment, the Performer may cease work or may proceed with its own funds (which shall be considered part of its cost share). The Performer acknowledges that should it chose to proceed using its own funds, it shall be at its own risk based on its independent business judgment exercised with the understanding that no further funding may be forthcoming from the Government. The Government agrees that should there be a funding delay, the Performer shall be eligible for reasonable schedule relief.

ACRN	Line of Accounting (LOA)	Amount Obligated	CLIN(s)
AA	1791319 W3TP 255 00014 0 050120 2D 000000 A00004850795	\$2,088,000	0001,0002,0003

3. If a modification becomes necessary in the performance of this Agreement that affects schedule or payment, pursuant to Article III, paragraph B, the ONR AO and the Performer's Administrator shall execute a revised Schedule of Milestones and Payments for prospective milestones.

B. Payments

1. The Parties agree that fixed payments will be made for the completion of milestones. These payments reflect value received by the Government toward the accomplishment of the research goals of this Agreement.

2. The Performer shall document the accomplishments of each completed milestone by submitting or otherwise providing the milestone report required by Attachment 2. After written verification of the accomplishment of the milestone by the ONR AOR or PO, the Performer will submit its invoice through Wide Area Work Flow ("WAWF"), as detailed in Attachment 4.

3. Limitation of Funds: In no case shall the Government's financial liability exceed the amount obligated under this Agreement.

4. Payments will be made by the cognizant Defense Finance and Accounting Service office, as

indicated below, within 30 (thirty) calendar days of an accepted invoice in Wide Area Workflow (WAWF). Attachment 4 details how to submit and process invoices through WAWF.

The Performer is required to utilize the Wide Area Workflow system when processing invoices and submitting reports under this Agreement. The Performer shall (i) ensure an Electronic Business Point of Contact is designated within the System for Award Management at <http://www.sam.gov> and (ii) register to use WAWF at the <https://wawf.eb.mil> site, within ten (10) calendar days after award of this Agreement. Step by Step procedures to register are available at the <https://wawf.eb.mil> site. The Performer is directed to use the “2-in-1” format when processing invoices.

5. Payments shall be made in the amounts set forth in Attachment 3, provided the ONR AOR or PO has verified the completion of the milestones.

6. The Performer shall maintain adequate records to account for all funding under this Agreement. Upon completion or termination of this Agreement, whichever occurs earlier, the Performer shall furnish to the AO a copy of the Final Report required by Attachment 2. If necessary, the Performer agrees to provide additional financial information concerning its cost share sufficient to reasonably demonstrate its expenditures towards the Effort

C. Pre-Agreement Costs

As provided in the pre-contract cost letter, dated 29 January 2019, the Government agreed to a payment for costs incurred on or after 29 January 2019 up to the effective date of this Agreement by the Performer for work necessary to permit the Performer to meet the milestones in Attachment 3. Accordingly, the Government shall pay the fixed amount of \$800,000 for such costs as set forth in Attachment 3.

D. COST SHARE

Except as noted below, the Government’s contributions are fixed. If the Performer’s costs exceed its cost share as reflected in Attachment 3, the Performer shall not be entitled to any increase in the Government’s contribution.

The Performer understands that this Agreement is authorized by 10 U.S.C. § 2371b based upon the Performer maintaining at least a one-third cost share. If, at the end of the base Effort and any optional performance periods and the delivery of all deliverables, the Performer’s actual costs are such that its share falls below one-third, the Government’s contribution shall be decreased in the amount necessary to reestablish a one-third cost share. The adjustment may be made by direct remittance from the Performer to the Government, a decrease in a Government payment to the Performer, or a combination of both.

ARTICLE V: DISPUTES

A. General

The Parties shall communicate with one another in good faith and in a timely and cooperative manner when raising issues under this Article.

B. Dispute Resolution Procedures

1. Any disagreement, claim or dispute between ONR and the Performer concerning questions of fact or law arising from or in connection with this Agreement, and, whether or not involving an alleged breach of this Agreement, may be raised only under this Article.

2. Whenever disputes, disagreements, or misunderstandings arise, the Parties shall attempt to resolve the issue(s) involved by discussion and mutual agreement as soon as practicable. In no event shall a dispute, disagreement or misunderstanding which arose more than three (3) months prior to the notification made under subparagraph B.3 of this article constitute the basis for relief under this article unless the Chief of Naval Research, as the Head of the Contracting Activity, waives this requirement.

3. Failing resolution by mutual agreement, the aggrieved Party shall document the dispute, disagreement, or misunderstanding by notifying the other Party (through the ONR AO) in writing of the relevant facts, identify unresolved issues, and specify the clarification or remedy sought. Within five (5) working days after providing notice to the other Party, the aggrieved Party may, in writing, request a joint decision by the ONR Executive Director, Acquisition Department, and a senior executive (no lower than Director level) appointed by the Performer. The other Party shall submit a written position on the matter(s) in dispute within thirty (30) calendar days after being notified that a decision has been requested. The ONR Senior Procurement Executive and the senior executive shall conduct a review of the matter(s) in dispute and render a joint decision in writing within thirty (30) calendar days of receipt of such written position. Any such joint decision is final and binding.

4. In the absence of a joint decision, upon written request to the ONR Code 33 Department Head, made within thirty (30) calendar days of the expiration of the time for a decision under subparagraph B.3 above, the dispute shall be further reviewed. The Head of Code 33 of ONR shall conduct this review personally or through a designee, jointly with a senior executive (no lower than Vice President / General Manager level) appointed by the Performer. The Head of Code 33 of ONR and the Performer's senior executive shall conduct a review of the matter(s) in dispute and render a joint decision in writing within sixty (60) calendar days of receipt of such written request. Any such joint decision is final and binding. In the absence of a decision sixty (60) calendar days after referral to the Head of Code 33 (or such other period as agreed to by those parties), either Party may pursue any right or remedy provided by law. Alternatively, the Parties may mutually agree to explore and establish an Alternate Disputes Resolution procedure to resolve the dispute.

C. Limitation of Damages

Claims for damages of any nature whatsoever pursued under this Agreement shall be limited to direct damages only up to the aggregate amount of ONR funding obligated as of the time the dispute arises. In no event shall ONR be liable for claims for consequential, punitive, special and incidental damages, claims for lost profits, or other indirect damages.

ARTICLE VI: PATENT RIGHTS

A. Allocation of Principal Rights

1. Unless the Performer shall have notified ONR, in accordance with subparagraph B.2 below, that the Performer does not intend to retain title, the Performer shall retain the entire right, title, and interest throughout the world to each subject invention consistent with the provisions of this Article.

2. With respect to any subject invention in which the Performer retains title, ONR shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the United States the subject invention throughout the world.

B. Invention Disclosure, Election of Title, and Filing of Patent Application

1. The Performer shall disclose each subject invention to ONR within four (4) months after the

inventor discloses it in writing to his company personnel responsible for patent matters. The disclosure to ONR shall be in the form of a written report and shall identify the Agreement and circumstances under which the invention was made and the identity of the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological, or electrical characteristics of the Invention. The disclosure shall also identify any publication, sale, or public use of the invention and whether a manuscript describing the invention has been submitted and/or accepted for publication at the time of disclosure.

2. If the Performer determines that it does not intend to retain title to any such Invention, the Performer shall notify ONR, in writing, within eight (8) months of disclosure to ONR. However, in any case where publication, sale, or public use has initiated the one (1)-year statutory period wherein valid patent protection can still be obtained in the United States, the period for such notice may be shortened by ONR to a date that is no more than sixty (60) calendar days prior to the end of the statutory period.

3. The Performer shall file its initial patent application on a subject invention to which it elects to retain title within one (1) year after election of title or, if earlier, prior to the end of the statutory period wherein valid patent protection can be obtained in the United States after a publication, or sale, or public use. The Performer may elect to file patent applications in additional countries (including the European Patent Office and the Patent Cooperation Treaty) within either ten (10) months of the corresponding initial patent application or six (6) months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications, where such filing has been prohibited by a Secrecy Order.

4. The Performer shall notify ONR of any decisions not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceedings on a patent, in any country, not less than thirty (30) calendar days before the expiration of the response period required by the relevant patent office.

5. Requests for extension of the time for disclosure election, and filing under Article VI, may be granted at ONR's discretion after considering the circumstances of the Performer and the overall effect of the extension.

6. The Performer shall submit to ONR annual listings of subject inventions. At the completion of the Agreement, the Performer shall submit a comprehensive listing of all subject inventions identified during the course of the Agreement and the current status of each.

C. Conditions When the Government May Obtain Title

Upon ONR's written request, the Performer shall convey title to any subject invention to ONR under any of the following conditions:

1. If the Performer fails to disclose or elects not to retain title to the subject invention within the times specified in Paragraph B of this Article; however, ONR may only request title within sixty (60) calendar days after learning of the failure of the Performer to disclose or elect within the specified times;

2. In those countries in which the Performer fails to file patent applications within the times specified in paragraph B of this Article; however, if the Performer has filed a patent application in a country after the times specified in paragraph B of this Article, but prior to its receipt of the written request by ONR, the Performer shall continue to retain title in that country; or

3. In any country in which the Performer decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceedings on, a patent on a subject invention.

D. Minimum Rights to the Performer and Protection of the Performer's Right to File

1. The Performer shall retain a nonexclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Performer fails to disclose the subject invention within the times specified in paragraph B of this Article. The Performer's license extends to its domestic (including Canada) subsidiaries and affiliates, if any, and includes the right to grant licenses of the same scope to the extent that the Performer was legally obligated to do so at the time the Agreement was awarded. The license is transferable only with the approval of ONR, except when transferred to the successor of that part of the business to which the subject invention pertains. ONR approval for license transfer shall not be unreasonably withheld.

2. The Performer's domestic license may be revoked or modified by ONR to the extent necessary to achieve expeditious practical application of the Subject Invention pursuant to an application for an exclusive license submitted consistent with appropriate provisions at 37 CFR Part 404. This license shall not be revoked in that field of use or the geographical areas in which the Performer has achieved practical application and continues to make the benefits of the subject invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of ONR to the extent the Performer, its licensees, or the subsidiaries or affiliates have failed to achieve practical application in that foreign country.

3. Before revocation or modification of the license, ONR shall furnish the Performer a written notice of its intention to revoke or modify the license, and the Performer shall be allowed thirty (30) calendar days (or such other time as may be authorized for good cause shown) after the notice to show cause why the license should not be revoked or modified.

E. Action to Protect the Government's Interest

1. The Performer agrees to execute or to have executed and promptly deliver to ONR all instruments necessary to (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Performer elects to retain title, and (ii) convey title to ONR when requested under paragraph C of this Article and to enable the Government to obtain patent protection throughout the world in that subject invention.

2. The Performer agrees to require by written agreement with its employees, other than clerical and non-technical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Performer each subject invention made under this Agreement in order that the Performer can comply with the disclosure provisions of paragraph B of this Article. The Performer shall instruct employees, through employee agreements or other suitable educational programs, on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U. S. or foreign statutory bars.

3. The Performer shall include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement:

"This invention was made with Government support under Agreement No. N00014-19-9-0005, awarded by ONR. The Government has certain rights in the invention.

F. Lower Tier Agreements

The Performer shall include this Article, suitably modified, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work.

G. Reporting on Utilization of Subject Inventions

1. The Performer agrees to submit, during the term of the Agreement, an annual report on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Performer or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Performer, and such other data and information as the agency may reasonably specify. The Performer also agrees to provide additional reports as may be requested by ONR in connection with any march-in proceedings undertaken by ONR in accordance with Paragraph I of this Article. ONR agrees it shall not disclose such information to persons outside the Government without permission of the Performer, unless required by law.

2. All required reporting shall be accomplished, to the extent possible, using the i-Edison reporting website: <https://s-edison.info.nih.gov/iEdison/>. To the extent any such reporting cannot be carried out by use of i-Edison, reports and communications shall be submitted to the Agreements Officer and Administrative Agreements Officer.

H. Preference for American Industry

Notwithstanding any other provision of this clause, the Performer agrees that it shall not grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any product embodying the subject invention or produced through the use of the subject invention shall be manufactured substantially in the United States. However, in individual cases, the requirements for such an agreement may be waived by ONR upon a showing by the Performer that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that, under the circumstances, domestic manufacture is not commercially feasible.

I. March-in Rights

The Performer agrees that, with respect to any subject invention in which it has retained title, ONR has the right to require the Performer, an assignee, or exclusive licensee of a subject invention to grant a non-exclusive license to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Performer, assignee, or exclusive licensee refuses such a request, ONR has the right to grant such a license itself if ONR determines that:

1. Such action is necessary because the Performer or assignee has not taken effective steps, consistent with the intent of this Agreement, to achieve practical application of the subject invention;
2. Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Performer, assignee, or their licensees;
3. Such action is necessary to meet requirements for public use and such requirements are not reasonably satisfied by the Performer, assignee, or licensees; or
4. Such action is necessary because the agreement required by paragraph (H) of this Article has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such Agreement.

ARTICLE VII: DATA RIGHTS

A. Allocation of Principle Rights

1. The Parties agree that with combined Government and Performer funding, the Performer intends to reduce to practical application items, components and processes developed under this Agreement.

2. With respect to Data developed, generated, and/or delivered under the Agreement pursuant to Attachments 1, 2 and 3, the Government shall receive Limited Rights, as defined in Attachment 5, unless the Performer elects to provide additional rights. Notwithstanding the provision in A.3, the performer agrees, with respect to this Data, the Government may, within two (2) years after completion or termination of this Agreement, require delivery of data and receive Limited Rights thereto.

3. March-In Rights

(a) In the event the Government chooses to exercise its March-in Rights, as defined in Article VI, Section I of this Agreement, the Performer agrees, upon written request from the Government, to deliver at no additional cost to the Government, all Data necessary to achieve practical application within sixty (60) calendar days from the date of the written request. The Government shall retain Unlimited Rights, as defined in Attachment 5 of this Agreement, to this delivered Data.

(b) To facilitate any potential deliveries, the Performer agrees to retain and maintain in good condition until two (2) years after completion or termination of this Agreement, all Data necessary to achieve practical application of any subject invention as defined in Attachment 5.

B. Marking of Data

Pursuant to paragraph A above, any Data delivered under this Agreement with Limited Rights shall be marked with the following legend:

LIMITED RIGHTS. The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by the terms of Contract Number N00014-19-9-0005 between the Government and General Dynamics Land Systems, Inc, 38500 Mound Road, Sterling Heights, MI, USA. These rights do not include the right to manufacture, within or outside the Government, any additional quantities of the products supplied. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings. Any person, other than the Government, who has been provided access to such data must promptly notify General Dynamics Land Systems, Inc.

Any Data delivered under this Agreement with Unlimited Rights shall be marked with the following legend:

Use, duplication, or disclosure is subject to the restrictions as stated in Agreement N00014-19-9-0005 between the Government and General Dynamics Land Systems, Inc, 38500 Mound Road, Sterling Heights, MI, USA.

B. Lower Tier Agreements

The Performer shall include this Article, suitably modified to identify the Parties, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work.

ARTICLE VIII: FOREIGN ACCESS TO TECHNOLOGY

This Article shall remain in effect during the term of the Agreement and for five (5) years thereafter.

A. General

The Parties agree that research findings and technology developments arising under this Agreement may constitute a significant enhancement to the national defense, and to the economic vitality of the United States. Accordingly, access to important technology developments under this Agreement by Foreign Firms or Institutions must be carefully controlled. The controls contemplated in this Article are in addition to, and are not intended to change or supersede, the provisions of the International Traffic in Arms Regulation (22 CFR pt. 121 et seq.), the DoD Industrial Security Regulation (DoD 5220.22-R) and the Department of Commerce Export Regulation (15 CFR pt. 770 et seq.)

B. Restrictions on Sale or Transfer of Technology to Foreign Firms or Institutions

1. In order to promote the national security interests of the United States and to effectuate the policies that underlie the regulations cited above, the procedures stated in subparagraphs B.2, B.3, and below shall apply to any transfer of Technology. For purposes of this paragraph, a transfer includes a sale of the company, and sales or licensing of Technology. Transfers do not include:

- (a) sales of products or components; or
- (b) licenses of software or documentation related to sales of products or components; or
- (c) transfer to foreign subsidiaries of the Performer for purposes related to this Agreement; or
- (d) transfer which provides access to Technology to a Foreign Firm or Institution which is an approved source of supply or source for the conduct of research under this Agreement provided that such transfer shall be limited to that necessary to allow the firm or institution to perform its approved role under this Agreement.

2. The Performer shall provide timely notice to ONR of any proposed transfers from the Performer of Technology developed under this Agreement to Foreign Firms or Institutions. If ONR determines that the transfer may have adverse consequences to the national security interests of the United States, the Performer, its vendors, and ONR shall jointly endeavor to find alternatives to the proposed transfer which obviate or mitigate potential adverse consequences of the transfer but which provide substantially equivalent benefits to the Performer.

3. In any event, the Performer shall provide written notice to the ONR AOR and AO of any proposed transfer to a foreign firm or institution at least sixty (60) calendar days prior to the proposed date of transfer. Such notice shall cite this Article and shall state specifically what is to be transferred and the general terms of the transfer. Within thirty (30) calendar days of receipt of the Performer's written notification, the ONR AO shall advise the Performer whether it consents to the proposed transfer. In cases where ONR does not concur or sixty (60) calendar days after receipt and ONR provides no decision, the Performer may utilize the procedures under Article V, Disputes. No transfer shall take place until a decision is rendered.

4. In the event a transfer of Technology to Foreign Firms or Institutions which is NOT approved by ONR takes place, the Performer shall (a) refund to ONR funds paid for the development of the Technology and (b) the Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced on behalf of the United States the Technology throughout the world for Government and any and all other purposes, particularly to effectuate the intent of this Agreement. Upon request of the Government, the Performer shall provide written confirmation of such licenses.

C. Lower Tier Agreements

The Performer shall include this Article, suitably modified, to identify the Parties, in all subcontracts or lower tier agreements, regardless of tier, for experimental, developmental, or research work.

ARTICLE IX: TITLE TO AND DISPOSITION OF PROPERTY

A. Title to Property

Title to each item of property acquired under this Agreement using Government funding with an acquisition value of \$5,000 or less shall vest in the Performer upon acquisition with no further obligation of the Parties unless otherwise determined by the AO. Should any item of property with an acquisition value greater than \$5,000 be required to be purchased using Government funding, the Performer shall obtain prior written approval of the AO. Title to this property shall also vest in the Performer upon acquisition, unless directed by the AO, in which case Article IX D shall apply. The Performer shall be responsible for the maintenance, repair, protection, and preservation of all property at its own expense. The end item deliverables enumerated in Attachment 1 to this Agreement shall not be classified as property.

B. Control of End Item Deliverables

Following delivery of the end items enumerated in Attachment 1 to this Agreement, the Government shall make reasonable efforts to preclude unauthorized access to such deliverables by the Performer's commercial competitors and the general public. Unfettered access shall be authorized for the Government and its Service Provider Contractors only (as defined herein), unless otherwise agreed in writing by the Performer. The Government reserves the right to display or demonstrate the deliverables at events related to the Effort or other ONR/DOD activities. The Government shall make reasonable efforts to permit only general and incidental access to the deliverables by parties other than the Government and its Service Provider Contractors, so as to preclude unauthorized parties from obtaining, directly or indirectly, inherent or explicit Technical Data (as defined herein) related to the deliverables. Whenever possible, with consideration to Defense Security and other legal restrictions, the Government will provide the Performer with the option to attend events at which the deliverables are displayed or demonstrated.

C. Access to End Item Deliverables

Following delivery of the end items enumerated in Attachment 1 to this Agreement, the Government shall provide access to such deliverables to the Performer for its continued development, test, and other purposes. Such access shall be subject to availability relative to Government use of the end item deliverables, and shall be at the Performer's expense. In such event, the Performer shall be responsible for the return of the end item in the condition received, subject to fair wear and tear.

D. Disposition of Property

At the completion of the term of this Agreement, if determined by the AO in accordance with Article IX A, items of property with an acquisition value greater than \$5,000 shall be disposed of in the following manner:

1. Purchased by the Performer at an agreed-upon price, the price to represent fair market value, with the proceeds of the sale being returned to ONR; or
2. Transferred to a Government research facility with title and ownership being transferred to the Government; or
3. Donated to a mutually agreed University or technical learning center for research purposes; or

4. Any other ONR-approved disposition procedure.

E. Government Furnished Property

The Government may provide the Performer with Government Furnished Property (GFP) to facilitate the performance of this Agreement. The GFP is identified in Attachment 1, Appendices 2 through 5, to this Agreement. The GFP shall be utilized only for performance of this Agreement unless a specific exception is made in writing by the AO. The Performer shall assume the risk of and be responsible for any loss or destruction of, or damage to, any GFP while in its possession or control, with the exception of reasonable wear and tear or reasonable and proper consumption. However, if the Performer has an approved property management system and uses this system to manage the GFP provided in this Agreement, the Performer shall assume no risk of and not be responsible for any loss or destruction of, or damage to, any GFP while in its possession or control. This exception shall not apply such loss, damage, or destruction results from willful misconduct or lack of good faith on the part of the Performer's managerial personnel. The Performer shall obtain explicit written authorization by the AO for any transfer or disposition of GFP. Unless relieved of responsibility for loss, damage or destruction as provided herein, all GFP shall be returned at the end of this Agreement in as good as condition as when received, reasonable wear and tear excepted.

ARTICLE X: CIVIL RIGHTS ACT

This Agreement is subject to the compliance requirements of Title VI of the Civil Rights Act of 1964 as amended (42 U.S.C. 2000-d) relating to nondiscrimination in Federally assisted programs. The Performer has signed an Assurance of Compliance with the nondiscriminatory provisions of the Act.

ARTICLE XI: SECURITY

1. Classified Material.

A. The Performer will require access to classified information, in accordance with the DD 254 attached to this Agreement. The Performer shall comply with the National Industrial Security Program Operating Manual (NISPOM), DoD 5220.22-M in accessing, generating, or handling classified information under this Agreement.

B. The Performer shall include this Article, suitably modified to identify the Parties, in all subcontracts or lower tier agreements, regardless of tier, that involve access to classified information. The Performer shall comply with the National Industrial Security Program Operating Manual (NISPOM), DoD 5220.22-M, regarding the issuance of DD254s permitting subcontractors/vendors to access, generate, or handle classified information under this Agreement.

2. Controlled Information

The Parties understand that information and materials provided pursuant to or resulting from this Agreement may constitute unclassified controlled or otherwise sensitive information and are protected by law, executive order or regulation. Each Party is responsible for compliance with all applicable laws and regulations. Nothing in this Agreement shall be construed to permit any disclosure in violation of those restrictions.

ARTICLE XII: PUBLIC RELEASE OR DISSEMINATION OF INFORMATION

There shall be no dissemination or publication, except within and between the Performer and any subcontractors, of information developed under this Agreement or contained in the reports to be furnished pursuant to this Agreement without prior written approval of the ONR AOR or the ONR PO. All technical reports will be given proper review by appropriate authority to determine which Distribution Statement is to be applied prior to the initial distribution of these reports by the Performer. Unclassified patent related documents are exempt from prepublication controls and this review requirement. There shall be no dissemination or publication, except within and between the Performer and any subcontractor(s), of information developed under this effort without first obtaining approval for public release from the ONR Public Release Center (PRC). Papers prepared in response to academic requirements which are not intended for public release outside the academic institution are exempt from prepublication controls.

The Performer shall submit all proposed public releases for review and approval as instructed at <http://www.ONR.mil/work-with-us/contract-management/public-release>. Public releases include press releases, specific publicity or advertisement, and publication or presentation, but exclude those relating to the open sourcing or licensing, sales or other commercial exploitation of products, services or technologies. In addition, articles for publication or presentation will contain a statement on the title page worded substantially as follows:

This research was, in part, funded by the U.S. Government. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressed or implied, of the U.S. Government.

ARTICLE XIII: ORDER OF PRECEDENCE

In the event of any inconsistency between the terms of this Agreement, the language set forth in the Attachments, the inconsistency shall be resolved by giving precedence in the following order: (1) The Agreement, (2) all Attachments to the Agreement.

ARTICLE XIV: EXECUTION

This Agreement constitutes the entire agreement of the Parties and supersedes all prior and contemporaneous agreements, proposals, understandings, negotiations and discussions among the Parties, whether oral or written, with respect to the subject matter hereof. This Agreement may be revised only by written consent of the Performer and the ONR AO. This Agreement, or modifications thereto, may be executed in counterparts each of which shall be deemed as original, but all of which taken together shall constitute one and the same instrument.

ARTICLE XV. FOLLOW-ON PRODUCTION CONTRACTS OR OTHER TRANSACTIONS

In accordance with 10 U.S.C. § 2371b(f), the Government may award a follow-on production contract or Other Transaction (OT) to the Performer, or a recognized successor in interest to the OT, following the successful completion of this entire Agreement, as modified.

--- END OF DOCUMENT ---

**ARMORED RECONNAISSANCE VEHICLE (ARV)
RESEARCH AREA 2 (RA2)
FULL SYSTEM TECHNOLOGY DEMONSTRATOR**

**Attachment 1
TASK DESCRIPTION**

For administrative convenience only, a top level index of this Task Description is as follows:

A1.1	General Scope
A1.1.1	Inspection, Acceptance and Delivery
A1.1.2	Program Management
A1.1.3	Reviews and Meetings
A1.1.4	Data Deliverables
A1.2	Design, Delivery and Test
A1.2.1	Demonstrator Design and Delivery
A1.2.1.1	Demonstrator Design
A1.2.1.2	Demonstrator Delivery
A1.2.2	Blast Hulls for Government Test
A1.2.3	Spares for Government Test
A1.2.4	Support to Government Test
A1.3	Options
A1.3.1	Extension to Support to USG Prototype Test
A1.3.2	Additional Blast Hulls
A1.3.3	Use Of Performer Vehicle To Augment Government Test
A1.4	Government Property
Appendix 1	Demonstrator Configuration
Appendix 2	Government Furnished Equipment
Appendix 3	Government Furnished Information
Appendix 4	Government Furnished Support
Appendix 5	Government Furnished Facilities

A1.1 GENERAL SCOPE. The Performer shall design a Full System Technology Demonstrator vehicle ("Demonstrator") in support of the Government's Research Area 2 (RA2) of the Armored Reconnaissance Vehicle (ARV) Science and Technology Phase. The Performer shall conduct the effort under this Agreement in accordance with this Task Description; Attachment 2, Report Requirements; and all other applicable terms and conditions.

The Demonstrator should be an operable platform that can withstand follow-on platform and subsystem testing by the Government. This demonstrator should, to the maximum extent possible, meet the threshold requirements for ARV (as described in the ARV Attributes), and encompassing an advanced, optimized capability, with low risk.

The Performer shall also provide the other supplies, services and data documentation described herein.

Use or disclosure of data contained on this sheet is subject to the provisions of the Agreement.

A1.1.1 INSPECTION, ACCEPTANCE AND DELIVERY (CLINs 0008, 0010, 0011, 3002, 4002). All hardware end item deliverables shall be inspected and accepted at the Performer's facility in London, Canada, according to the Performer's standard quality procedures for each end item. Such acceptance shall be via the ONR AOR or PO's approval in WAWF. Hardware end items shall be delivered FOB Origin (Performer's facility in London, Canada). The Government will be responsible for the arrangement of shipping hardware end items into the United States and the Performer shall be responsible for the cost of such shipping. To this end, the Government will provide a Government Bill of Lading (GBL) to ship the hardware end items to the United States and will invoice the Performer for the cost of the shipping.

All services (CLINs 0001, 0002, 0003, 0004, 0005, 0006, 0007, 0009, 0012, 0013, 0014, 1001, 1002, 1003, 2001, 2002, 2003, 3001, 4001) shall be inspected and accepted at Destination.

A1.1.2 PROGRAM MANAGEMENT. The Performer shall employ its standard processes to execute this Agreement. The Performer shall designate points of contact for the routine exchange of information in all specialties.

A1.1.2.1 SCHEDULING. The Performer shall maintain an Integrated Master Schedule (IMS) that details the tasks and milestone events of the project. The IMS shall include tasks associated with internal design, procurement, manufacturing and pre-delivery testing, as well as deliveries and other events conducted in conjunction with the Government. The dates and duration of each task shall be included and appropriate linkages between tasks shall be shown with sufficient information to determine the program's critical path. The IMS shall be delivered in accordance with Report A001, per Attachment 2 to this Agreement.

With respect to scheduled delivery requirements described herein, unless otherwise specified the following shall apply:

- Saturdays, Sundays, and U.S. Federal Holidays are not considered business days
- Except as otherwise specifically noted, any activities or deliveries due in a given month are due by the end of that month

A1.1.3 REVIEWS AND MEETINGS. The Performer and the Government shall conduct the reviews and meetings described below in order to exchange information relating to this Agreement. The meetings shall be attended by personnel who are familiar with the topics to be discussed. At least one Performer and one Government representative shall have the authority to resolve technical and programmatic issues raised during the meetings. Exact timing for the meetings shall be by mutual agreement of the Government and the Performer. Where feasible and agreed, meetings may be combined.

A1.1.3.1 INFORMAL MEETINGS. Informal reviews and meetings between Government and Performer representatives can be requested by either party at any time at no additional cost.

A1.1.3.2 FORMAL MEETINGS. The Performer shall conduct the reviews and meetings described below, which the Government will attend. These are summarized below, along with approximate timing, and further defined in subsequent paragraphs.

Meeting	Location
Kick-Off	DC
IPR#1	DC
IPR#2 / PDR	London
IPR#3 / CDR	London
IPR#4 / TRR (Blast Hull)	DC
TRR (Contractor Validation Testing)	London
IPR#5 / TRR (Demonstrator)	London
IPR#6	DC
IPR#7	DC
Final Review	DC

A1.1.3.2.1 KICK-OFF MEETING. The Government shall conduct a Kick-Off Meeting no later than 1 month after the effective date of this Agreement (EoA). The purpose of the Kick-Off meeting is to review the scope of work of the Agreement, outline the plans and schedules for its implementation and establish the points of contact for the Government and the Performer for each element of work.

The Kick-off Meeting shall include technical details associated with the specific work planned to be performed. The Performer shall present the methodology and approach envisioned to conduct the work, including the level of innovativeness, the level of modularity and ability to accept changing payloads and components over time, and the planned approach and usage of open architectures and interfaces in the proposed technology demonstrator. The Performer shall also describe to what extent they are addressing enabling technologies, including improved broad spectrum sensing and sensing ranges, enhanced communication and integrated battle management system, lethality for direct and indirect fires, and the utilization and integration of unmanned systems and manned/unmanned teaming to extend reach and reduce crew risk. Planned use of surrogates and GFE on the Demonstrator shall also be presented. The Kick-off meeting shall include a framework for tracking component, subsystem, and full system weight and cost throughout the program. An initial traceability matrix shall be presented to compare the expected technology demonstrator's capabilities to the notional ARV Attributes (which was provided as GFI to the Performer prior to this Agreement) and to the fielded LAV-25. The weight summary and Attribute matrix shall be updated throughout the program with updates provided at every program review. A financial plan expressing anticipated invoicing shall also be provided. A schedule of events shall be provided showing the major milestones and decision points. A definition of program risks and issues/concerns shall be provided and updated throughout the project.

The Kick-Off meeting shall be held in the Washington, DC, area, and be scheduled for one (1) business day duration.

A1.1.3.2.2 IN-PROCESS REVIEWS (IPRs). The Performer shall conduct IPRs throughout the Agreement performance period. IPRs shall be held approximately every ninety (90) calendar days, starting ninety (90) days after the Kick-Off Meeting. The purpose of IPRs is to brief management of the Performer and Government on progress to date, and on actual and potential schedule, technical or administrative problems with the Work.

IPRs shall include details of work completed to date and an overview of the remaining planned work, including updated projected weight and cost, discussion of progress on innovativeness, modularity, growth, usage of open architectures and interfaces, implementation of enabling technologies, use of surrogates and GFE, weight and cost, and expected Demonstrator performance relative to ARV Attributes and LAV-25. The Performer shall also provide updates on the status of invoicing, schedule and project risks.

The IPRs shall be held in London, Ontario, or the Washington, DC, area (in approximately equal quantities, as noted in A1.1.3.2), and be scheduled for one (1) day duration each. IPRs shall review cumulative performance and assess status in such areas as engineering design, hardware schedules, testing activities, and Agreement administration.

A1.1.3.2.3 DESIGN REVIEWS. The Performer shall conduct Design Reviews at the conclusion of major design activities. The purpose of the Design Reviews is to evaluate the design of each element relative to its performance and functional goals.

The Design Reviews shall be held in London, Ontario. Design Reviews shall be scheduled for one (1) business day duration each. Topics for the Design Reviews may include, as applicable:

- a. Hardware Design
- b. Software Design
- c. Cost
- d. Weight
- e. Reliability and Maintainability
- f. Human Factors and Safety
- g. Test Plans and Results

Each such Design Review shall also include a comparative assessment of the projected capabilities and performance of the Demonstrator relative to:

- Published ARV Attributes
- The fielded USMC LAV-25
- Other recent USMC Program requirements (ACV, JLTV)
- Other GDLS vehicles
- Other OEM's vehicles
- Potential adversary vehicles

A1.1.3.2.4 TEST READINESS REVIEWS. The Performer shall conduct test readiness reviews relating to major test elements of the program, as further described in section A1.2.1, below. TRRs shall address the design and operation of the materiel to be tested, and the plans

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for testing, and include a safety and risk assessment. The TRRs shall also review the availability of the test materiel, as well as supporting arrangements.

A1.1.3.2.5 FINAL REVIEW MEETING. The Government shall conduct a Final Review Meeting fourteen to thirty (14-30) days prior to the end of the base Effort period of performance of this agreement. The purpose of the Final Review Meeting is to review the status of all work, deliverables and invoicing related to this Agreement, and establish resolutions for any outstanding items and plans for reconciliation and close-out of the Agreement. The Final Review Meeting shall consist of an overview of the delivered platform and include any future platform recommendations or lessons learned from testing. An assessment of the platform's performance during the prescribed Government testing shall also be provided based on data available to the Performer along with a final version of the traceability matrix that compares the platform's characteristics and performance to the ARV attributes. The Final Review Meeting shall be held in the Washington, DC, area, and be scheduled for one (1) business day duration.

A1.1.4 DATA DELIVERABLES. The Performer shall deliver the data listed in Attachment 2, Report Requirements. Reports shall include the information specified in this Attachment in addition to that required in Attachment 2. The Performer shall produce the text and substance of Reports in electronic format. Electronic copies shall be of the file format produced by the following software applications, as appropriate:

<u>Application</u>	<u>Software Program</u>
General	Adobe Acrobat 5.0 or above
Text	Microsoft Word 2000 or above
Presentation	Microsoft PowerPoint 2000 or above
Spreadsheet	Excel 2000 or above
Project Management	Open Plan Professional 3.1 or above
	Microsoft Project 2000 or above
Database	Microsoft Access 2000 or above
Communications	Internet e-mail

A1.1.4.1 VERSION CONTROL. Both the Performer and the Government will ensure that compatible versions of new office software can be used by both parties prior to implementation. Updated versions of software programs selected by either party shall be capable of using data produced by previous versions.

A1.1.4.2 DATA IN ENGLISH. All data deliverables shall be in English. Data provided in support of deliverables (e.g. foreign supplier documents) need not be translated to English; however, to fully support Government review, the Performer shall either mark the support data in English in sufficient detail, or provide translation of the data.

A1.1.4.3 DISTRIBUTION. The following statement will be applied to the front page, or cover of the information delivered under this Agreement:

Use or disclosure of data contained on this sheet is subject to the provisions of the Agreement.

Distribution Statement D. Distribution authorized to Department of Defense and U.S. DoD contractors only (Administrative or Operational Use) (2/25/2019). Other request for this document shall be referred to Code 33, Office of Naval Research.

A1.1.4.4 MONTHLY PROGRESS REPORT. The Performer shall provide a monthly Progress Report in accordance with Report A002. Each Report shall contain, at a minimum, the following data:

- Narrative regarding work status versus plan
- Narrative regarding issues, risks, and opportunities
- Any expected changes to the Demonstrator's weight, cost, or performance
- Any changes to the project Master Schedule
- Schedule status
- Billing Status for all CLINs (by month)
- Payment Forecast for all CLINs (by month)

A1.1.4.5 MEETING MATERIALS. The Performer shall submit Agendas and Read Ahead Packages for the Performer Meetings delineated above in accordance with Report A003. All documents shall be in Performer's format and shall include:

- The location, date(s), duration, purpose and objective of each meeting.
- A chronological listing of each topic to be discussed, the time allotted for each and the name of the presenter.
- Status of action items/problem issues identified at previous meetings.
- Applicable briefing charts

A1.1.4.6 MINUTES. The Performer shall prepare and submit meeting minutes in accordance with Report A004. All minutes shall be in Performer's format and shall include:

- The location, date(s) and duration of each meeting.
- A list of attendees.
- Statement relating to the purpose/objective of the meeting
- The status of action items/issues identified at previous meetings.
- A listing of new action items/problem areas, to include the required resolution date.
- A summary of discussions and comments from the Government and Performer
- Decisions reached
- Updated briefing charts, as presented

A1.1.4.7 FINAL TECHNICAL REPORT. The Performer shall prepare and deliver a final report covering all work conducted under this Agreement to include, technical vehicle design information, demonstrator vehicle capability projections, summarized Performer test results and analysis, projected production vehicle weight, projected production vehicle unit cost, and proposed next steps. The Final Report shall be delivered in accordance with Report A005.

A1.1.4.8 INTELLECTUAL PROPERTY (IP) ASSERTION. The Performer shall provide updates on an as-required basis to the IP Assertions related to this Agreement, in accordance with Report A006.

A1.1.4.9 GOVERNMENT FURNISHED MATERIAL RECEIPT LIST (GFMRL). The Performer shall prepare and deliver a GFMRL that identifies all GFI and GFE received from the Government under this Agreement. The GFMRL shall be in Performer format. The list shall include: stock number (or other identifying number), name, Exhibit Line Item Number, unit of issue, unit price (if known), quantity received, quantity required, date received from the Government, and physical condition received in. The GFMRL shall also have information on items shipped back to the Government for repair or replacement, or returned permanently to the Government. Items received or returned in the current month shall be clearly identified. The list shall be delivered in accordance with Report A007.

A1.2 DESIGN, DELIVERY AND TEST

The Performer shall design, build and support Government test of the RA2 Demonstrator vehicle in the configuration agreed during the Concept Study conducted under Contract N00014-18-2048, and as defined herein.

A1.2.1 DEMONSTRATOR DESIGN AND DELIVERY.

A1.2.1.1 DEMONSTRATOR DESIGN. The Performer shall use their standard engineering practices to complete the design of the RA2 Demonstrator and to support its build. The Demonstrator design shall be consistent with the configuration as noted in Appendix 1 to this Task Description.

A1.2.1.1.1 SUBSYSTEM DESIGN. The Performer shall refine the Concept Design to establish the Detailed Design at the subsystem level, and to create and maintain a CAD Master Model of the Demonstrator vehicle. During this activity, the Performer will coordinate with the Government to identify key systems and components from BAA N00014-18-S-B001 RA1 (as amended) development activities that can be incorporated into the vehicle configuration, subject to their performance, capabilities, maturity, cost, availability and other factors as applicable.

A1.2.1.1.2 SOFTWARE REQUIREMENTS ANALYSIS. On the basis of the final sub-system configuration for the Demonstrator, the Performer shall refine the software requirements (for example, for data exchange, control and display functions, and diagnostics).

A1.2.1.1.3 PRELIMINARY DESIGN REVIEW (PDR) (0004). The Performer shall conduct an evaluation of the Preliminary Design, to include those elements noted in A1.1.3.2.3. The PDR shall demonstrate the Performer's understanding of the Government's desired attributes for the developed platform, provide an update on the expected technical performance of the platform, discuss long lead item material procurement, provide an assessment of programmatic risks, and provide preliminary design information on the proposed Technology Demonstrator, Blast Hulls, and Add-on-Armor. The entry criteria for the PDR shall be:

- Allocated subsystem Requirements
- Updates space claims
- Subsystem design and initial Engineering Bill of Material (EBOM)
- Suppliers and long lead items identified

Exit criteria for the PDR shall be:

- Updated Risks and Issues
- Completed Design Review checklist

Upon successful completion of the PDR, the Performer shall initiate final design activities. The PDR shall be held in London, Ontario, and be scheduled for one (1) business day duration

A1.2.1.1.4 DETAILED DESIGN. As agreed at the PDR, the Performer shall undertake detailed hardware and software design activities for the RA2 Demonstrator. The Performer will use their existing hardware and software components, where they are available and meet the program requirements, adapt such designs to meet the Demonstrator's specific requirements, or else design new hardware and software components where necessary. The master model, weight estimate, compliance assessments, and other tracking tools will be maintained during this activity.

A1.2.1.1.5 SOFTWARE IMPLEMENTATION AND TEST. The Performer shall establish a Software Integration Lab (SIL) as a virtual environment to simulate the vehicle configuration, to host, integrate and conduct initial testing of software components, prior to migration to the vehicle computing platform.

The Performer shall conduct SIL testing to verify operations such as signal boundary conditions, circuit breaker functionality, Controller Area Network (CAN) interfaces and operation, control module functionality, state management, and fault management. The SIL will also be used during the build phase to troubleshoot faults and fixes during the software and vehicle system verification testing.

A1.2.1.1.6 COMPONENT TESTING. Prior to installation on the Demonstrator vehicle, the Performer shall conduct testing of select components to validate discrete performance.

A1.2.1.1.7 CRITICAL DESIGN REVIEW (CDR). The Performer shall conduct an evaluation of the Detailed Design, to include those elements noted in A1.1.3.2.3. The CDR shall build upon the information provided in the PDR and provide details on the articles to be built, and provide detailed information on the material procurement, build, and integration phases of the project. For any proposed capability that will not be provided on the Technology Demonstrator and/or Blast Hulls, the Performer shall include sufficient technical detail to facilitate an analysis of the integration of the capability into the proposed design. The entry criterion for the CDR shall be:

- Subsystem detail design
- EBOM
- Completed space claims & interference analysis

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- Initial Validation Plan

Exit criteria for the CDR shall be:

- Updated Risks and Issues
- Completed Design Review checklist

Upon successful completion of the CDR, the Performer shall initiate procurement and build activities. The CDR shall be held in London, Ontario, and be scheduled for one (1) business day duration

A1.2.1.2 DEMONSTRATOR DELIVERY (0010). The Performer shall build, test and deliver an RA2 Demonstrator according to the agreed design configuration.

A1.2.1.2.1 MATERIAL PROCUREMENT. The Performer shall procure the materials required for the Demonstrator build in accordance with the vehicle EBOM, and otherwise as per its best practices. Where complex sub-systems are to be integrated, the Performer shall establish appropriate Statements of Work and/or Performance Specification to manage the adaptation and/or design of these systems to meet the Demonstrator requirements.

Where the Performer and the Government have identified key systems and components from BAA RA1 development activities that can be incorporated into the vehicle configuration, such systems will be provided either as GFE (and added to Appendix 2 to this Task Description), or else be provided by the system supplier on a free-in-aid basis to the Performer, with appropriate agreements to support the planned Government use.

The Performer may also opt to utilize pre-existing Performer-owned assets in the build of the vehicle. If such assets are allocated to the Demonstrator build, they will provided to the Government on loan (installed on the Demonstrator), with appropriate agreements to support the planned Government use.

A1.2.1.2.2 DEMONSTRATOR BUILD. The Performer shall use its standard practices and processes to fabricate and assemble the RA2 Demonstrator vehicle, according to the Performer Data Package resultant from the Detail Design activity. The Performer shall design, modify or adapt any requisite tooling and fixtures to support this activity.

A1.2.1.2.3 SOFTWARE IMPLEMENTATION. Once the Demonstrator is available for such purpose, the Performer shall migrate its software from the SIL to the vehicle computing platform and conduct appropriate integration testing to establish performance of the overall vehicle system. This testing will include:

- Testing of any performance that cannot be accomplished in the SIL
- Vehicle software validation, including regression testing to verify software requirements, user functions, signals and functionality
- Verification of control algorithm functioning, data communication across the busses, and fault logging

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A1.2.1.2.4 TEST READINESS REVIEW (CONTRACTOR VALIDATION TESTING). When the Demonstrator vehicle is confirmed functional, and approximately thirty (30) days prior to the start of their internal verification testing, the Performer shall conduct a Test Readiness Review (TRR) to include the presentation and assessment of plans and procedures for this testing. Entry criteria for the TRR shall be:

- A released Validation Plan and associated released Test Plans
- Availability of the Demonstrator vehicle for test

The TRR shall address the testing events that will occur and any planned tuning and break in operations, as well as test procedures, assessment metrics, and test schedule. Procedures for Government witnessing of the verification testing shall be defined. The Performer shall include verification test planning for all elements of the vehicle that will be evaluated under the Government test phase, to include, but not limited to: organic unmanned aerial vehicle/unmanned ground vehicle (UAV/UGV) integration and capabilities, integrated training systems, health monitoring systems, weapon preparation, and weapon servicing.

Exit criteria for the TRR shall be:

- Updated Risks and Issues
- Approved Verification Test Plan
- Completed TRR checklist

A1.2.1.2.4.1 VERIFICATION TEST PLAN. The Performer shall deliver their approved Verification test plan in accordance to Report A008.

A1.2.1.2.5 SYSTEM VERIFICATION TESTING. Once the Demonstrator vehicle is fully assembled and operational, and upon successful completion of the TRR, the Performer shall conduct System Verification Testing to validate its system level performance and confirm safe platform operation. This testing shall be conducted at the Performer's own or subcontracted facilities, and shall include:

- Acceleration and stopping distances
- Obstacle negotiation
- Maneuverability
- Float and leakage testing
- System shakedown
- Integration of UAVs, Sensors, BMS, and displays
- Powerpack performance, control and cooling
- High speed operation
- Mission profile testing (in an operationally indicative environment)
- Live fire testing
- Swim operations

A1.2.1.2.6 TRR (BLAST HULLS). Prior to delivery of the Blast Hulls to the Government for its testing, the Government shall conduct a Test Readiness Review (TRR) with the Performer to include a review and assessment of the Government's test plans and confirmation of the Blast Hulls' ability to support them. Entry criteria for the TRR shall be:

- A released Government Test Plan
- Availability of the blast hulls and add-on-armor for delivery for Government test

The Performer's contribution to the TRR shall include the final design and operation of the materiel to be delivered, expected attribute compliance, a safety assessment, and any risks associated with performing ballistic/blast testing due to the blast hulls' capability deviations from the Attributes. The Government will define their test plans, and any test support desired.

Upon successful completion of the TRR, the Performer shall finalize arrangements for delivery of the Blast Hulls for Government testing. The TRR shall be held in the Washington, DC, area at least thirty (30) days prior to the planned delivery of the initial blast hulls, and be scheduled for one (1) business day duration.

A1.2.1.2.7 TEST READINESS REVIEW (USG DEMONSTRATOR TESTING). Prior to delivery of the Demonstrator vehicle to the Government for its testing, the Government shall conduct a Test Readiness Review (TRR) with the Performer to include a review and assessment of the Government's test plans and confirmation of the Demonstrator's and Performer's ability to support them. As applicable, any constraints or restrictions will be identified. The Performer's plans to provide support to the Government testing shall also be reviewed and confirmed. Entry criteria for the TRR shall be:

- A released Government Test Plan
- Availability of the Demonstrator vehicle for delivery for Government test

The Performer's contribution to the TRR shall include the results of the prior verification testing and the ability of the platform to meet the agreed upon metrics. The Performer shall also address the test assets' readiness for the planned testing schedule, planned platform shipping schedules, details on contractor provided support personnel, spares, and equipment for government test event, and risk and safety assessment of the Technical Demonstrator platform. The risk and safety assessment should include any risks for specific test events associated with deviations between the technology demonstrator and the contractor's design. The Government will define their test plans, associated test support and other arrangements.

Upon successful completion of the TRR, the Performer shall finalize arrangements for delivery of the Demonstrator vehicle and associated support for Government testing. The TRR shall be held in the Washington, DC, area at least thirty (30) days prior to the planned delivery of the Demonstrator, and be scheduled for one (1) business day duration.

A1.2.1.2.7.1 SAFETY ASSESSMENT REPORT. The Safety Assessment Report (SAR) is a comprehensive evaluation of the safety risks being assumed prior to test or operation of the Demonstrator. It identifies all safety features of the system, design, and procedural hazards that

may be present in the system being acquired, and specific procedural controls and precautions that should be followed. The Performer shall deliver a SAR for the Demonstrator vehicle in accordance with Report A009.

A1.2.1.2.8 DATA PACKAGE. Upon delivery of the Demonstrator, the Performer shall compile and deliver a complete data package to support Government use of the Demonstrator. This Data Package shall include, but not be limited to: operating instructions, interface control documents, and modeling data to support USG installation of GFM equipment. The Data Package shall be marked so as to assert applicable data rights for each document, and shall be delivered in accordance with Report A010, inclusive of the elements described below.

A1.2.1.2.8.1 OPERATOR'S MANUAL. The Performer shall include an Operator's Manual for the Demonstrator in the Data Package Report. The Operator's Manual shall include a description of the operations and crew-level service of the Demonstrator platform. Information contained within shall describe, at least, vehicle starting procedures, operations of the doors/hatches, vehicle driving procedures, modifying drivetrain for driving on various terrain, weapon procedures, and operation of unmanned assets.

A1.2.1.2.8.2 TECHNICAL DRAWINGS. The Performer shall include a series of technical drawings of the Demonstrator in the Data Package Report. Interface Control Drawings shall be provided of the Demonstrator as a whole, as well as all of the major subsystems to include, but not limited to, hull, armor, engine, transmission, electric power generation, weapon, axles, tires, seats, door/hatches, and swim drives. All components must also be dimensionally accurate and dimensions of all components must be clearly marked.

A1.2.1.2.8.3 CAD MODEL. The Performer shall include a CAD model of the Demonstrator in the Data Package Report. This CAD model shall comprise an integrated 3D virtual model of the finalized Demonstrator design consisting of individual models of the various major system components. Component and system models shall contain accurate material, mass, and center of gravity properties, consistent with their real-world counterparts. These models shall consist of all of the major subsystems to include, but not limited to, hull, engine, transmission, electric power generation, weapon, axles, tires, seats, door/hatches, swim drives, and stowed items (i.e. packs, days of supply, and combat essential equipment). All modeled components must be dimensionally accurate to sufficient detail to facilitate transportability, packaging, protection, and hydrostatic analyses.

A1.2.2 BLAST HULLS AND ARMOR FOR GOVERNMENT TEST (CLIN 0008). The Performer shall deliver two (2) blast hulls to be used by the Government to verify system-wide blast protection capabilities (e.g., under-vehicle/under-tire blast). The blast hulls should be structurally sufficient to accommodate the representative weight for the proposed design.

The blast hulls shall be up-weighted to represent curb weight, GVW, or GVWR, whichever is applicable for testing as specified by the PO. One set of representative weights/masses shall be provided for this purpose for features such as turret, mass simulators/surrogate hardware for all primary automotive components, and other major subassemblies. The blast hulls should be representative of the full scale system design, and in the ride height condition that will be

applicable during cross-country/off-road maneuver. The blast hulls shall be configured to include inherent hull armor and geometries, and interior spall liners.

The Performer shall also deliver one (1) set of exterior applique armor. The blast hulls may be used to test the technology demonstrator's ability to prevent penetration of, or mitigate the overmatching effects of, both direct fire and indirect fire threats, and both kinetic and chemical energy weapons. These blast hulls shall be delivered four (4) months prior to the delivery of the Demonstrator vehicle.

A1.2.3 SPARES FOR GOVERNMENT TEST (CLIN 0011). The Performer shall establish, in conjunction and coordination with the Government, a System Support Package (SSP) of spare parts intended to support maintenance (both corrective and preventative) of the Demonstrator vehicle during Government test, in accordance with the released Test Plan. This SSP shall be delivered contemporaneously with the Demonstrator vehicle.

A1.2.4 SUPPORT TO GOVERNMENT TEST (CLIN 0012, 0013, 0014). The Performer shall provide three (3) capable and knowledgeable Field Service Representative (FSR) personnel to support Government test activities, as well as one (1) on-site Engineer, at one or more North American locations, as directed by the Government. The Performer FSRs shall primarily provide all necessary maintenance support as required, and also be able to operate/drive the vehicle and operate/fire the weapon system. The FSRs shall also manage the System Support Package (SSP).

The Government testing schedule will be up to 8 hours per day, Monday to Friday, at a Government test site in the continental United States, for a total duration of six (6) contiguous months immediately following delivery of the Demonstrator. The maintenance schedule shall be up to 12 hours per day, Monday to Friday, during this period. No maintenance work is anticipated to be performed on the weekends or U.S. Government holidays. Work outside this maintenance schedule shall require specific approval by the Government. Support is not required for the communications equipment (radios and intercom), or other GFE.

The Performer shall also provide appropriate engineering support, as required, both on-site at the test facility, and remotely, to address technical issues or inquiries.

A1.3 OPTIONS

A1.3.1 EXTENSION TO SUPPORT TO USG PROTOTYPE TEST (CLINs 1001-1003 and 2001-2003). If the Government exercises an option for Technology Demonstrator Testing Support, the Performer shall extend the support described in section A.2.4 for a period of six (6) contiguous months for each option in direct continuation of the prior period of support. During the optional extension periods, the Performer shall provide two (2) full-time Field Service Representatives on-site at the USG test location(s).

A1.3.2 ADDITIONAL BLAST HULLS (CLINs 3001 and 3002, 4001 and 4002). If the Government exercises an option for additional blast hulls, the Performer shall build and deliver one (1) additional blast hull per option, in the same configuration as described in section A1.2.2

(not including ballast or applique armor). Each additional blast hull shall be delivered within eight (8) months of the date of option exercise.

A1.3.3 USE OF PERFORMER VEHICLE TO AUGMENT GOVERNMENT TEST. In order to enable the Government to more effectively evaluate interoperability and Command and Control aspects of the Demonstrator, and to allow the evaluation of possible alternative technologies and design approaches to those inherent in the Demonstrator, the Performer is willing to make available their Internal Research and Development (IRAD) vehicle asset, designated "Wheeled Light One" ("WL1"). WL1 is equipped with many similar and compatible technologies to the Demonstrator, and has a similar general configuration.

The availability of WL1 shall be subject to mutually agreeable test plans and schedules. Upon such agreement, the Performer shall provide a cost proposal for vehicle usage, Performer crew, technical personnel and other support arrangements (spares, tools, etc.), as required based on the agreed scope. The Government will be responsible for shipping of the Demonstrator and other support equipment, as applicable.

If the Government elects to use WL1, all technologies, systems and functions of the Full System Technology Demonstrator shall operate in accordance with the requirements of this Agreement, in support of the program objectives, and fully support the Government's Test and Evaluation plans. All support to Government testing as described herein will also remain unaffected.

A1.4 GOVERNMENT PROPERTY. The Government will provide the Government Furnished Equipment, Information, Support and Facilities identified in Appendices 2 through 5.

--- END OF DOCUMENT ---

**ARMORED RECONNAISSANCE VEHICLE (ARV)
RESEARCH AREA 2 (RA2)
FULL SYSTEM TECHNOLOGY DEMONSTRATOR**

**Appendix 1 to Attachment 1
DEMONSTRATOR CONFIGURATION**

A1-1.1 The Armored Reconnaissance Vehicle (ARV) RA2 Demonstrator shall be based upon the approved configuration from the Concept Study conducted under Contract N00014-18-2048, and as described below (noting that final vehicle configuration is subject to adjustment through the design process, in consultation with the Government):

1. Mobility Systems (Automotive Chassis)

- a. 8x8 configuration
- b. 37,000lb or lower GVW goal
- c. 45,000lb GVWR
- d. Welded aluminum hull module over automotive sub-frame
- e. Tiedowns and lifting lugs compatible with land, air and sea transport
- f. Roof hatches and rear door or ramp
- g. 450hp diesel powerpack on forward, right of chassis
- h. Multi-volume, under-floor main fuel tanks and reserve tank in engine bay
- i. Internal exhaust with dual-path silencers
- j. Mechanical driveline (automatic transmission, 2-speed transfer case drive shafts, differentials and planetary wheel hubs)
- k. 8x8 and 8x4 drive selection
- l. Multi-link, long-travel, hydro-pneumatic suspension with adjustable ride height
- m. 365/80R20 tires with VFI run-flat inserts and CTIS
- n. Ackerman steering of forward 2 axles with hydraulic assist
- o. Air brakes with ABS
- p. 24VDC automotive power system with lithium-ion energy storage and ultra-capacitor engine starting system
- q. Drive by wire controls in parallel with mechanical systems for tele-operation
- r. Driver at front left, commander and gunner in turret and 3-4 scouts in rear
- s. Designed for 5th% female through 95th% male occupants

2. Swim Mobility Systems

- a. Hydraulically driven, electrically steered jet pods
- b. Hydraulically actuated front trim vane
- c. Electronic control from driver station, with provisions for possible future control from the Commander's station
- d. Simplified "swim mode" controls
- e. Engine air intake system through chassis
- f. Redundant bilge pumps
- g. Emergency egress lighting
- h. Water-activated seat restraints

Use or disclosure of data contained on this sheet is subject to the provisions of the Agreement.

3. Sensor Systems

- a. Direct vision periscopes
- b. High definition ultra-low light driver's vision aids (forward and reverse)
- c. Local 360-degree situational awareness low light and IR cameras, with selectable Point of View
- d. Gunner's weapon sight
 - i. HD Day TV camera(s)
 - ii. IR camera(s)
 - iii. Laser range finder
- e. Commander's independent ISR sensor
 - i. HD Day TV camera(s)
 - ii. IR camera(s)
 - iii. Laser range finder
- f. Fiber-optic reversionary sight
- g. Distributed laser detector/warning system
- h. Acoustic sensor detection/warning system
- i. Threat detection radar (from APS)
- j. Converged RF transceiver
- k. C-UAS detection (RF/radar/acoustic/EO)
- l. Own-vehicle location and attitude sensors
- m. Depth and submerged obstacle sensor
- n. CBRN sensors (surrogates to simulate activation)
- o. Meteorological sensors
- p. One or more organic UAS, for extended sensory reach and range

4. Command, Control, Communication and Computing (C4) Systems

- a. GDLS "Next Generation Electronic Architecture" (NGEA) with
 - i. Open hardware and software architecture
 - ii. Core Computing modules
 - iii. I/O & Signal Digitization modules
 - iv. Sensor & Video Processing modules
 - v. Power Management & Distribution modules
 - vi. Common Software Infrastructure
 - vii. Embedded cyber security provisions
 - viii. Inherent HEMP attack recovery
- b. Multiple CAN buses, with dual redundant primary control CAN bus
- c. Multiple Gigabyte Ethernet buses
- d. Sensor and communication data storage
- e. GDMS Tactical Communication System crew stations (intercom, radio and network access points)
- f. Wide field of view display for the driver
- g. Control / Display Units for crew access to vehicle systems
- h. Enhanced GUI with prioritized data displays
- i. MUM-T control stations for scouts

- j. External Vehicle Interface Panel (VIP) for hard-wired power, voice, data and RF connections (for off-boarding systems into ad hoc command posts, connections to other networks, etc.)
- k. Software defined multi-band radio(s)
- l. Integrated LTE modem, meshnet & Wi-Fi access point
- m. GPS and GLONASS receiver
- n. Automated RF signal detection, isolation, location and classification
- o. GDMS GeoSuite Battle Management System integrated to vehicle sensors, fire control system and other C4 systems

5. Lethality Systems

- a. 2-man GDLS “GD30” turret featuring
 - i. Stabilized 30x173mm dual-feed Mk44S, with manual reversionary mode
 - ii. Stabilized 7.62mm M240 Commander’s independent weapon (also slaves to main gun to serve as coaxial weapon)
 - iii. Spike LR-II ATGM
 - iv. Hunter-Killer fire control system
 - v. Automatic target tracking
 - vi. Slew-to-cue
 - 1. Commander’s sight to BMS (“BMS”)
 - 2. Gunner’s sight to Commander’s sight (“Designate”)
 - 3. Commander’s Sight to Gunner’s sight (“Merge”)
- b. Electronic Attack system
- c. Provisions for loitering munition UAS kit, with support for remote operation
- d. Target hand-off capability (between systems and between platforms/locations)

6. Protection Systems

- a. Reduced visual signature with disruptive camouflage pattern CARC
- b. Reduced thermal signature with diffused exhaust and wheel hub covers
- c. Reduced acoustic signature with quiet idle mode and silent watch capability
- d. Reduced radar signature with optimized hull shapes and selective use of radar absorbent materials
- e. Reduced RF signature with dynamic control over emissions
- f. Laser protection on direct vision devices
- g. Multi-spectral Automatic Obscuration System
- h. Provisions for RCIED jammer kit (GFE)
- i. Directional UHF/VHF/GPS jammer for C-UAS and other applications
- j. IMI Iron Fist Active Protection System (simulated, or GFE functional)
- k. Optimized hull shape for ballistic and blast protection
- l. Bolt-on, v-shaped blast protection module
- m. Energy attenuating seating
- n. Energy attenuating floor matting
- o. Lightweight ceramic add-on armor for all-around HMG, and side IED protection
- p. Contact anti-spall liner
- q. Dual-zone (engine/crew) automatic fire suppression system

7. Sustainment Systems

- a. Central heating and air conditioning
- b. Ducted air distribution
- c. Powered fresh air ventilation
- d. Integrated GDLS Health and Usage Monitoring System
- e. Embedded operator IETMs
- f. Embedded crew training system (example capability)
- g. Modular internal and external stowage
- h. NATO slave start receptacle
- i. Spare tire carrier kit (TBC)
- j. Tow pintle
- k. Land and water recovery provisions (tow/be towed)
- l. Self-recovery capability (TBC)
- m. In-water towing quick disconnects
- n. Towed/Towing vehicle air and electrical connections

--- END OF DOCUMENT ---

**ARMORED RECONNAISSANCE VEHICLE (ARV)
RESEARCH AREA 2 (RA2)
FULL SYSTEM TECHNOLOGY DEMONSTRATOR**

**Appendix 2 to Attachment 1
GOVERNMENT FURNISHED EQUIPMENT (GFE)
FOR DEMONSTRATOR DESIGN, DELIVERY AND TEST**

A1-2.1 The Government may supply the following GFE in support of the Performer's design, delivery, and test activities:

Seq.	Description	Part Number / NSN	Qty	Unit Value	Total Value	Delivery Date *	Delivery Location DODAAC	Additional Notes
01	Active Protection System	Iron Fist Light	1	TBD	TBD	15EoA	CK0TT5	
02	RCIED Jammer	TBD	1	TBD	TBD	15EoA	CK0TT5	
03	Small Tactical Terminal (STT)	KOR24A	1	TBD	TBD	6EoA	CK0TT5	

*(EoA) Execution of Agreement

DODAAC Key:

CK0TUQ General Dynamics, 1991 Oxford Street East, Building 15, London, Ontario, Canada, N5V 2Z7

CK0TT5: HCL Logistics Inc., 2021 Oxford Street East, London, Ontario, Canada N5V 2Z7

* All delivery dates are approximate

--- END OF DOCUMENT ---

**ARMORED RECONNAISSANCE VEHICLE (ARV)
RESEARCH AREA 2 (RA2)
FULL SYSTEM TECHNOLOGY DEMONSTRATOR**

**Appendix 3 to Attachment 1
GOVERNMENT FURNISHED INFORMATION (GFI)
FOR DEMONSTRATOR DESIGN, DELIVERY AND TEST**

A1-3.1 The Government may supply the following GFI relating to the GFE defined in Appendix 3 in support of the Performer's design, delivery, and test activities:

Seq.	Description	Reference	Delivery Date *	Additional Notes
01	Active Protection System ICD	TBD	2EoA	
02	Active Protection System Technical Manuals	TBD	2 EoA	
03	RCIED Jammer ICD	TBD	2 EoA	
04	RCIED Jammer Technical Manuals	TBD	2 EoA	
05	STT ICD	TBD	2 EoA	
06	STT Technical Manuals	TBD	2 EoA	

* All delivery dates are approximate

--- END OF DOCUMENT ---

**ARMORED RECONNAISSANCE VEHICLE (ARV)
RESEARCH AREA 2 (RA2)
FULL SYSTEM TECHNOLOGY DEMONSTRATOR**

**Appendix 4 to Attachment 1
GOVERNMENT FURNISHED SUPPORT
FOR DEMONSTRATOR DESIGN, DELIVERY AND TEST**

A1-4.1 The Government will supply the following support to the Performer's design, delivery, and test activities:

Seq.	Description	Reference	Delivery Date	Additional Notes
01				
02				

--- END OF DOCUMENT ---

**ARMORED RECONNAISSANCE VEHICLE (ARV)
RESEARCH AREA 2 (RA2)
FULL SYSTEM TECHNOLOGY DEMONSTRATOR**

**Appendix 5 to Attachment 1
GOVERNMENT FURNISHED FACILITIES
FOR DEMONSTRATOR DESIGN, DELIVERY AND TEST**

A1-5.1 The Government will provide use of the following facilities in support to the Performer's design, delivery and test activities:

Seq.	Description	Reference	Usage Date	Additional Notes
01				
02				

--- END OF DOCUMENT ---

**ARMORED RECONNAISSANCE VEHICLE (ARV)
RESEARCH AREA 2 (RA2)
FULL SYSTEM DEMONSTRATOR**

**Attachment 2
REPORT REQUIREMENTS**

A2 This Attachment describes the following Reports to be submitted by the Performer to the Government pursuant to this Agreement:

A001	Integrated Master Schedule
A002	Monthly Progress Report
A003	Agendas and Read-Ahead Packages
A004	Meeting Minutes
A005	Final Technical Report
A006	IP Assertion
A007	GFM Receipt List
A008	Verification Test Plan
A009	Safety Assessment Report
A010	Data Package
A011	Milestone Reports
A012	Patent Reports
A013	Executive Summary

A2.1 REPORT A001, INTEGRATED MASTER SCHEDULE. An Integrated Master Schedule shall be provided that details the tasks and milestone events across the contracted period of performance. This schedule shall be updated quarterly and provided in PDF or Microsoft Project formats.

First Report is due at the Kick-Off Meeting.

Subsequent Reports are due at each Formal Meeting prior to the Final Review.

A2.2 REPORT A002, MONTHLY PROGRESS REPORT. Monthly Progress Reports shall include a description of the technical work completed and accomplishments during the reporting period and work planned for the next reporting period. These reports are not intended to be burdensome and are expected to be approximately two pages in length. All reports should address progress on modularity, open architecture, and innovation in platform design. One (1) copy shall be provided to each of the following ONR personnel: AOR and PO.

First Report is due 7 days after the effective date of this Agreement, to describe work performed in the pre-award period.

Subsequent Reports are due every 30 days until Agreement end.

A2.3 REPORT A003, AGENDAS AND READ-AHEAD PACKAGES. Read Ahead Reports shall consist of the information planned to be presented during each meeting, to enable read-ahead by the Government to support a more productive meeting. One (1) copy shall be provided to each of the following ONR personnel: AOR and PO.

Reports are due 7 days before Kickoff, Design Reviews, Test Readiness Reviews, In-Process Reviews, and Final Review meetings.

A2.4 REPORT A004, MEETING MINUTES. Meeting Minutes Reports shall summarize the meeting discussions and decisions, capture action items, and include final versions of any presentations or tabled materials. One (1) copy shall be provided to each of the following ONR personnel: AOR and PO.

Reports are due within 7 days after Kickoff, Design Reviews, Test Readiness Reviews, In-Process Reviews, and Final Review meetings.

A2.5 REPORT A005, FINAL TECHNICAL REPORT (NOTE: submission of the Final Technical Report is a requirement for completion of the last milestone of the base Effort).

The Final Report shall describe in detail the efforts, results, and findings related to all activities that occurred during the execution of this Agreement. This should be a standalone report that should be clearly written such that individuals not closely associated with the project can understand the approaches, methods used, and results of the effort. The Report shall include a detailed list and description of the component and subsystem technologies considered as part of trade studies; a narrative on why technologies were or were not selected; weight and cost summary; and the traceability matrix that compares the Demonstrator's capabilities to the notional ARV Attributes (provided as GFI) and to the fielded LAV-25. The Report shall also include a description of the level of innovativeness of the Demonstrator, the level of modularity and ability to accept changing payloads and components over time, and the planned approach and usage of open architectures and interfaces. The Report shall describe to what extent the performer's models, analysis, and trades addressed the key enabling capabilities of improved broad spectrum sensing and sensing ranges, enhanced communication and integrated battle management system, providing lethality for direct and indirect fires, and the utilization and integration of unmanned systems and manned/unmanned teaming to extend reach and reduce crew risk. The Report shall describe the results from all test events and provide a recommended path forward for any system changes as a result of lessons learned during the program.

This technical report shall include as a separate Classified Annex, technical details associated with Classified aspects of the project to include testing, technology trades, and proposed concept design. This shall include descriptions of armor recipes that contains sufficient information on the armor material description, thickness, and areal density for all layers, obliquity angles for each recipe, and where each individual armor recipe is located on the Demonstrator.

Initial delivery of the Final report shall be 6 months prior to the end of the base Effort period of performance and should coincide with delivery of Demonstrator Platform.

An updated final report is due by the end of the base Effort period of performance.

One (1) copy shall be provided to each of the following ONR personnel: AOR and PO.

One (1) copy shall be submitted to the Defense Technical Information Center, Attn: DTIC-BCS, 8725 John J. Kingman Road, Suite 0944, Fort Belvoir, VA 22060-0944.

A2.6 REPORT A006, IP ASSERTION. The Performer shall Report to the Government, asserting for itself and/or other persons as identified, how the Government's rights to use, release, or disclose technical data may be restricted. This assertion shall include the following information:

- Document number / reference
- Variant applicable
- Document title
- Basis for assertion
- Asserted rights category
- Name of person asserting restrictions

Reports are due as required (i.e., as IP is identified that requires assertion of rights). One (1) copy shall be provided to each of the following ONR personnel: AOR and PO..

A2.7 REPORT A007, GFM RECEIPT LIST. Upon receipt of Government furnished Equipment and Information, the Performer shall submit a Government Furnished Material Receipt List (GFMRL) Report, detailing:

- Description / reference of the equipment / information received
- Date and location at which received
- GFE value (as applicable)
- Details of any discrepancies
- Any other pertinent notes

One (1) copy shall be provided to each of the following ONR personnel: AOR and PO.

Reports are due as required (i.e., as GFM is received).

A2.8 REPORT A008, VERIFICATION TEST PLAN. The Verification Test Plan Report shall describe the tests to be performed by the Performer prior to delivery of the Demonstrator to the Government. The Report shall include the associated procedures, and assessment metrics, and shall provide a sufficient level of detail to describe the number of test hours and miles driven during this verification test period.

One (1) copy shall be provided to each of the following ONR personnel: AOR and PO.

Draft version of the Report is due 60 days prior to Test Readiness Review (TRR) for the Performer's Verification Testing.

The Final version of the Report shall be provided 7 days after approval of the plan at the TRR.

Use or disclosure of data contained on this sheet is subject to the provisions of the Agreement.

A2.9 REPORT A009, SAFETY ASSESSMENT REPORT. The Safety Assessment Report (SAR) is a comprehensive evaluation of the safety risks being assumed prior to test or operation of the Demonstrator. It identifies all safety features of the system, design, and procedural hazards that may be present in the system being acquired, and specific procedural controls and precautions that should be followed.

This document shall adequately describe the mitigation strategies and approaches to reducing risks associated with operating the developed Technology Demonstrator platforms. Systems should include, but not be limited to, weapon systems, fueling systems, batteries, doors/hatches, platform fail safes, braking, steering and handling, watertight integrity, bilge pump systems, etc. This report will primarily be used as information to the Government selected test facilities.

The SAR shall include the following sections:

- Introduction
- System description (to include a brief historical summary of system development, brief description of the system and its components, relevant photos and schematics)
- System operations (a description or reference to operating and maintenance procedures and any special equipment or facility requirements)
- Systems safety engineering (summary of the safety criteria and methodology used to classify and rank hazardous conditions, list of all hazards by subsystem or major component, actions taken to mitigate risks, and a listing of any residual risks)
- Conclusions and Recommendations.

One (1) copy shall be provided to each of the following ONR personnel: AOR and PO.

Draft version of the Report is due 30 days prior Test Readiness Review (TRR) for Government Testing.

Final version of the document is due 14 days after receipt of Government feedback.

A2.10 REPORT A010, DATA PACKAGE. The Performer shall submit a Demonstrator Data Package Report, intended to support Government use of the Demonstrator, and installation of GFM equipment. This Data Package Report shall include, but not be limited to:

- Operator's Manual
- Technical Drawings
- CAD Model

One (1) copy shall be provided to each of the following ONR personnel: AOR and PO.

CAD Model delivery format shall be STEP or other mutually agreed file format. Prior to submission, the Performer shall verify the Top Level Assembly opens without errors.

Preliminary version of the CAD model element of the Report shall be provided at CDR.

Draft version of the Report is due 14 days prior to the Test Readiness Review (TRR) for Government Testing.

Final version of the Data Package Report is due upon delivery of the Demonstrator vehicle.

A2.11 REPORT A011, MILESTONE REPORTS. The Performer shall submit documentation describing the extent of accomplishment of the Milestones described in Attachment 3 to this Agreement, Schedule of Milestones and Payments. Milestone Reports shall be sufficient for the ONR AOR or PO to reasonably verify the completion of the relevant Milestone. One (1) copy shall be provided to each of the following ONR personnel: AOR and PO.

A2.12 REPORT A012, PATENT REPORTS

A2.12.1 INVENTION DISCLOSURE REPORTS. The Performer shall disclose each Subject Invention to ONR within (2) two months after the inventor discloses it in writing to his company personnel responsible for patent matters or with submission of the next milestone report, whichever comes first. The disclosure to ONR shall be in the form of a written report and shall identify the Agreement under which the Invention was made and the identity of the inventor(s). The invention disclosures shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological, or electrical characteristics of the Invention. The disclosure shall also identify any publication, sale, or public use of the Invention and whether a manuscript describing the Invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. The Performer shall also submit to ONR an annual listing of Subject Inventions.

If the Performer determines that it does not intend to retain title to any such Invention, the Performer shall notify ONR, in writing, within eight (8) months of disclosure to ONR. However, in any case where publication, sale, or public use has initiated the one (1)-year statutory period wherein valid patent protection can still be obtained in the United States, the period for such notice may be shortened by ONR to a date that is no more than sixty (60) calendar days prior to the end of the statutory period.

The Performer shall file its initial patent application on a Subject Invention to which it elects to retain title within one (1) year after election of title or, if earlier, prior to the end of the statutory period wherein valid patent protection can be obtained in the United States after a publication, or sale, or public use. The Performer may elect to file patent applications in additional countries (including the European Patent Office and the Patent Cooperation Treaty) within either ten (10) months of the corresponding initial patent application or six (6) months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications, where such filing has been prohibited by a Secrecy Order.

Requests for extension of the time for disclosure election, and filing under Article VI, paragraph B and C, may, at the discretion of ONR, and after considering the position of the Performer, be granted.

One (1) copy of each notice or report shall be provided to each of the following ONR personnel: AO, AOR and PO.

A2.12.2 REPORTING ON UTILIZATION OF SUBJECT INVENTIONS. The Performer agrees to submit, during the term of the Agreement, an annual report on the utilization of a Subject Invention or on efforts at obtaining such utilization that are being made by the Performer or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Performer, and such other data and information as the agency may reasonably specify. The Performer also agrees to provide additional reports as may be requested by ONR in connection with any march-in proceedings undertaken by ONR in accordance with Article VI, paragraph I. Consistent with 35 U.S.C. § 202(c)(5), ONR agrees it shall not disclose such information to persons outside the Government without permission of the Performer.

All required reporting shall be accomplished, to the extent possible, using the i-Edison reporting website: <https://s-edison.info.nih.gov/iEdison/>. To the extent any such reporting cannot be carried out by use of i-Edison, reports and communications shall be submitted to the ONR AO, AOR and PO.

A2.13 REPORT A013, EXECUTIVE SUMMARY. The Performer shall submit a one to two page executive-level Summary Report of the major accomplishments of this Agreement and the benefits of using the “other transactions” authority pursuant to 10 U.S.C. § 2371 and Section 845, National Defense Authorization Act for Fiscal Year 1994, as amended upon completion of this Agreement. This Report shall include a discussion of the actual or planned benefits of the technologies for both the military and commercial sectors. One (1) copy shall be submitted to the ONR AO at the conclusion of the Agreement.

--- END OF DOCUMENT ---

CLIN	Due Date	Milestone Description	GDLS Cost Share	Fixed Government Share	Total Milestone Cost	Obligated Government Funding (PR# 1300760813)	SLIN	ACRN
0001	31-May-19	Contract Award	(b) (4)	(4)	\$1,743,214	\$800,000		AA
0002	30-Jun-19	Kick-off Meeting			\$986,593	\$600,000		AA
0003	30-Aug-19	In-Process Review #1			\$1,086,602	\$688,000		AA
0004	31-Oct-19	Preliminary Design Review (PDR) and In-Process Review #2			\$6,783,780			
0005	31-Jan-20	Critical Design Review (CDR) and In-Process Review #3(Hull Material on Hand)			\$1,861,414			
0006	31-Jan-20	Demonstrator Hull Weld Complete			\$2,839,062			
0007	29-May-20	Test Readiness Review (TRR) for Contractor Validation Testing (Vehicle Complete)			\$1,863,936			
0008	29-May-20	Blast Hulls and AOA Delivery			\$618,944			
0009	31-Aug-20	Test Readiness Review (TRR) for Government Testing			\$63,617			
0010	30-Sep-20	Demonstrator Delivery			\$1,476,545			
0011	30-Sep-20	Spares Delivery			\$311,697			
0012	30-Nov-20	Technology Demonstrator Testing Support Month 2 Complete			\$451,666			
0013	29-Jan-21	Technology Demonstrator Testing Support Month 4 Complete			\$438,794			
0014	31-Mar-21	Technology Demonstrator Testing Support Month 6 Complete			\$351,863			
1001	31-May-21	Option 1 - Technology Demonstrator Testing Support Month 2 Complete			\$397,617			
1002	30-Jul-21	Option 1 - Technology Demonstrator Testing Support Month 4 Complete			\$397,617			
1003	30-Sep-21	Option 1 - Technology Demonstrator Testing Support Month 6 Complete			\$389,646			
2001	30-Nov-21	Option 2 - Technology Demonstrator Testing Support Month 2 Complete			\$170,000			
2002	31-Jan-22	Option 2 - Technology Demonstrator Testing Support Month 4 Complete			\$170,000			
2003	31-Mar-22	Option 2 -Technology Demonstrator Testing Support Month 6 Complete			\$162,029			
3001	Option Exercise +6 months	Optional Blast Hull #3 Weld Complete			\$350,000			
3002	Option Exercise +8 months	Optional Blast Hull #3 Delivery	\$56,674					
4001	Option Exercise +6 months	Optional Blast Hull #4 Weld Complete	\$350,000					
4002	Option Exercise +8 months	Optional Blast Hull #4 Delivery	\$57,677					
Total:					\$24,069,330			

**ARMORED RECONNAISSANCE VEHICLE (ARV)
RESEARCH AREA 2 (RA2)
FULL SYSTEM TECHNOLOGY DEMONSTRATOR**

**Attachment 4
WIDE AREA WORKFLOW INSTRUCTIONS**

Payments will be made by the Defense Finance and Accounting Service office, as indicated below, within 30 (thirty) calendar days of an accepted invoice in Wide Area Workflow (WAWF). Wide Area Workflow (WAWF) is a secure web-based system for electronic invoicing, receipt and acceptance. The WAWF application enables electronic form submission of invoices, government inspection, and acceptance documents in order to support DoD's goal of moving to a paperless acquisition process.

Authorized DoD users are notified of pending actions by e-mail and are presented with a collection of documents required to process the contracting or financial action. It uses Public Key Infrastructure (PKI) to electronically bind the digital signature to provide non-reputable proof that the user (electronically) signed the document with the contents. Benefits include online access and full spectrum view of document status, minimized re-keying and improving data accuracy, eliminating unmatched disbursements and making all documentation required for payment easily accessible.

The Performer is required to utilize the Wide Area Workflow system when processing invoices and receiving reports under this Agreement. The Performer shall (i) ensure an Electronic Business Point of Contact is designated in System for Award Management at <http://www.sam.gov> and (ii) register to use WAWF-RA at the <https://wawf.eb.mil> site, within ten (10) calendar days after award of this Agreement. Step by Step procedures to register are available at the <https://wawf.eb.mil> site. The Performer is directed to use the "2-in-1" format when processing invoices. The Performer should submit a copy of the AOR or PM approval of the milestone, as well as a copy of the milestone report, with each invoice.

- a) For the Issue By DoDAAC, enter N00014.
- b) For the Admin DoDAAC, enter S2305A.
- c) For the Service Acceptor AOR fields, enter the Service Acceptor AOR DoDAAC.
- d) Leave the Inspect by DoDAAC, Ship From Code DoDAAC, Service Approver, and LPO DoDAAC fields blank unless otherwise directed by the AO.
- e) The following guidance is provided for invoicing processed under this Agreement through WAWF:
 - The AOR or PO identified in Attachment 6, "Agreement Administration" shall continue to formally inspect and accept the deliverables/milestones. To the maximum extent practicable, the AOR or PO shall review the

Use or disclosure of data contained on this sheet is subject to the provisions of the Agreement.

deliverable(s)/milestone report(s) and either: 1) provide a written notice of rejection to the Performer which includes feedback regarding deficiencies requiring correction, or 2) written notice of acceptance.

- Acceptance within the WAWF system shall be performed by the AO upon receipt of a confirmation email, or other form of transmittal, from the AOR or PO.
- The Performer shall send an email notice to the AOR or PO and AO and upload the AOR or PO approval as an attachment upon submission of an invoice in WAWF (this can be done from within WAWF).
- Payments shall be made by DFAS-(HQ0337).
- The Performer agrees, when entering invoices entered in WAWF to utilize the CLINs associated with each milestone as delineated at Attachment 3. The description of the CLIN shall include reference to the associated milestone CLIN number along with other necessary descriptive information. The Performer agrees that the Government may reject invoices not submitted in accordance with this provision.

Note for DFAS: The Agreement shall be entered into the DFAS system by CLIN – milestone association (MS)/ACRN as delineated at Attachment 3. The Agreement is to be paid out by CLIN (MS)/ACRN. Payments shall be made using the CLIN (MS)/ACRN association as delineated at Attachment 3.

f) Payee Information: As identified at the System for Award Management.

- Cage Code: 7W356
- DUNS: 131266926
- TIN: 54-0582680

g) Payments shall be made in the amounts set forth in Attachment 3, provided the ONR AOR or PO has verified the completion of the milestones.

--- END OF DOCUMENT ---

**ARMORED RECONNAISSANCE VEHICLE (ARV)
RESEARCH AREA 2 (RA2)
FULL SYSTEM TECHNOLOGY DEMONSTRATOR**

**Attachment 5
DEFINITIONS**

In this Agreement, the following definitions apply:

Agreement: The body of this Agreement and Attachments 1 – 7, which are expressly incorporated in and made a part of the Agreement.

Data: Recorded information, regardless of form or method of recording, which includes but is not limited to, recorded technical data, software, maskworks and trade secrets. The term does not include financial, administrative, cost, pricing or management information and does not include subject inventions, included in Article VI.

Effort: Research and development being conducted by the Performer, as set forth in Article I.

Foreign Firm or Institution: A firm or institution organized or existing under the laws of a country other than the United States, its territories, or possessions. The term includes, for purposes of this Agreement, any agency or instrumentality of a foreign government; and firms, institutions or business organizations which are owned or substantially controlled by foreign governments, firms, institutions, or individuals.

Government: The United States of America, as represented by ONR.

Government Purpose Rights: The rights to use, duplicate, or disclose Data, in whole or in part and in any manner, for Government purposes only, and to have or permit others to do so for Government purposes only.

Invention: Any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code.

Know-How: All information including, but not limited to discoveries, formulas, materials, inventions, processes, ideas, approaches, concepts, techniques, methods, software, programs, documentation, procedures, firmware, hardware, technical data, specifications, devices, apparatus and machines.

Limited Rights: Rights to use, modify, reproduce, release, perform, display, or disclose Data, in whole or in part, within the Government. These rights do not include the right to manufacture, within or outside the Government, any additional quantities of the products supplied.

Made: Relates to any invention means the conception or first actual reduction to practice of such invention.

Party: Includes the Government (represented by ONR), or the Performer, or both.

Use or disclosure of data contained on this sheet is subject to the provisions of the Agreement.

Performer: The Contractor.

Practical application: To manufacture, in the case of a composition of product; to practice, in the case of a process or method, or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is capable of being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

Property: Any physical property other than property actually consumed during the execution of work under this agreement. For purposes of this article, "property" does not include end item deliverables enumerated in Attachment 1 to this Agreement.

Service Provider Contractors: Those parties directly or indirectly contracted by the Government to assist in the execution and administration of the Effort. Service Provider Contractors do not include commercial competitors of the Performer relative to current or future phases of the USMC Armored Reconnaissance Vehicle or other combat or tactical vehicle programs for the Government, or other parties who have made proposals to the Government to design, integrate, manufacture or support such vehicles.

Subject Invention: Any invention conceived or first actually reduced to practice in the performance of work under this Agreement.

Technical Data: Information, recorded or inherent in hardware, required for the design, development, production, manufacture, assembly, operation, repair, testing, maintenance or modification of the End Item Deliverables of this Agreement, Classified data relating to the End Item Deliverables, and excluding general scientific, mathematical, or engineering principles commonly taught in schools, colleges, and universities, information in the public domain, or general system descriptions or basic marketing information on the function or purpose of the End Item Deliverables. Technical data does not include any information that that can be obtained by a visible inspection of the exterior of the End Deliverable items or by viewing a demonstration of the normal operation of the end deliverable items, provided that:

- 1) No measurements of the dimensions of the end deliverables are made;
- 2) No images of the end deliverables items are made, and;
- 3) No recording of the demonstration of the end items is made.

Technology: Discoveries, innovations, Know-How and inventions, whether patentable or not, including computer software, recognized under U.S. law as intellectual creations to which rights of ownership accrue, including, but not limited to, patents, trade secrets, maskworks and copyrights developed under this Agreement.

Unlimited Rights: Rights to use, duplicate, release, or disclose, Data, in whole or in part, in any manner and for any purposes whatsoever, and to have or permit others to do so.

--- END OF DOCUMENT ---

Use or disclosure of data contained on this sheet is subject to the provisions of the Agreement.

**ARMORED RECONNAISSANCE VEHICLE (ARV)
RESEARCH AREA 2 (RA2)
FULL SYSTEM TECHNOLOGY DEMONSTRATOR**

**Attachment 6
AGREEMENT ADMINISTRATION**

A6 Below is a list of the Points of Contact for the Performer and ONR. Each Party may change its representatives named below by written notification to the other party. The Government will affect the change following the procedures in Article III, subparagraph B.2. of the main text of the Agreement.

A6.1 Government Points of Contact:

Agreements Officer (AO):

Valarie Hall
Director of Contract and Grants
Office of Naval Research
703-696-0690
valarie.hall@navy.mil

Program Officer (PO):

Mr. Jeffrey Bradel
Program Officer
Code 33, Mission Capable, Persistent, & Survivable Naval Platforms Department
Office of Naval Research
703-588-2552
jeff.bradel@navy.mil

Agreements Officer's Representative (AOR):

Mr. Jeffrey Bradel
Program Officer
Code 33, Mission Capable, Persistent, & Survivable Naval Platforms Department
Office of Naval Research
703-588-2552
jeff.bradel@navy.mil

A6.2 Performer's Points of Contact

Administrative/Contracting:

Tisa Laryea
GDLS Senior Contracts Representative
586-825-5788
laryeatm@gdls.com

Use or disclosure of data contained on this sheet is subject to the provisions of the Agreement.

Program Manager:
David S. Tunney
GDLS Programs Manager
519-964-5837
tunneyd@gdls.com

--- END OF DOCUMENT ---

DEPARTMENT OF DEFENSE CONTRACT SECURITY CLASSIFICATION SPECIFICATION <small>(The requirements of the National Industrial Security Program (NISP) apply to all security aspects of this effort involving classified information.)</small>		<small>OMB No. 0704-0567 OMB approval expires: October 31, 2020</small>
<small>The public reporting burden for this collection of information, 0704-0567, is estimated to average 70 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</small>		
RETURN COMPLETED FORM AS DIRECTED IN THE INSTRUCTIONS.		
1. CLEARANCE AND SAFEGUARDING		
a. LEVEL OF FACILITY SECURITY CLEARANCE (FCL) REQUIRED <small>(See Instructions)</small> Secret	b. LEVEL OF SAFEGUARDING FOR CLASSIFIED INFORMATION/ MATERIAL REQUIRED AT CONTRACTOR FACILITY Secret	
2. THIS SPECIFICATION IS FOR: (X and complete as applicable.)		
<div style="display: flex; justify-content: space-between;"><div style="width: 48%;"><input checked="" type="checkbox"/> a. PRIME CONTRACT NUMBER <small>(See instructions.)</small> N00014-19-9-0005 <input type="checkbox"/> b. SUBCONTRACT NUMBER <input type="checkbox"/> c. SOLICITATION OR OTHER NUMBER DUE DATE (YYYYMMDD) <input type="checkbox"/></div><div style="width: 48%;"><input checked="" type="checkbox"/> a. ORIGINAL <small>(Complete date in all cases.)</small> DATE (YYYYMMDD) 20190517 <input type="checkbox"/> b. REVISED <small>(Supersedes all previous specifications.)</small> REVISION NO. DATE (YYYYMMDD) <input type="checkbox"/> c. FINAL <small>(Complete Item 5 in all cases.)</small> DATE (YYYYMMDD)</div></div>		
4. IS THIS A FOLLOW-ON CONTRACT? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <small>If yes, complete the following:</small> Classified material received or generated under <u>N00014-18-C-2048</u> <small>(Preceding Contract Number)</small> is transferred to this follow-on contract.		
5. IS THIS A FINAL DD FORM 254? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <small>If yes, complete the following:</small> In response to the contractor's request dated _____, retention of the classified material is authorized for the period of: _____		
6. CONTRACTOR <small>(Include Commercial and Government Entity (CAGE) Code)</small>		
a. NAME, ADDRESS, AND ZIP CODE GENERAL DYNAMICS LAND SYSTEMS, INC. PO BOX 1800 WARREN, MI 48090-1800	b. CAGE CODE 7W356	c. COGNIZANT SECURITY OFFICE(S) (CSO) <small>(Name, Address, ZIP Code, Telephone required; Email Address optional)</small> DEFENSE SECURITY SERVICE (IOFND) 17177 N. LAUREL PARK DRIVE, SUITE 423 LIVONIA, MI 48152
7. SUBCONTRACTOR(S) <small>(Click button if you choose to add or list the subcontractors -- but will still require a separate DD Form 254 issued by a prime contractor to each subcontractor)</small>		
a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE(S) (CSO) <small>(Name, Address, ZIP Code, Telephone required; Email Address optional)</small>
8. ACTUAL PERFORMANCE <small>(Click button to add more locations.)</small>		
a. LOCATION(S) <small>(For actual performance, see instructions.)</small>	b. CAGE CODE <small>(If applicable, see instructions.)</small>	c. COGNIZANT SECURITY OFFICE(S) (CSO) <small>(Name, Address, ZIP Code, Telephone required; Email Address optional)</small>
9. GENERAL UNCLASSIFIED DESCRIPTION OF THIS PROCUREMENT Armored Reconnaissance Vehicle (ARV) FNC		

10. CONTRACTOR WILL REQUIRE ACCESS TO: (X all that apply. Provide details in Blocks 13 or 14 as set forth in the instructions.)

- ☐ a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION
- ☐ b. RESTRICTED DATA
- ☐ c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION (CNWDI)
(If CNWDI applies, RESTRICTED DATA must also be marked.)
- ☐ d. FORMERLY RESTRICTED DATA
- ☒ e. NATIONAL INTELLIGENCE INFORMATION:
- ☐ (1) Sensitive Compartmented Information (SCI)
- ☒ (2) Non-SCI
- ☐ f. SPECIAL ACCESS PROGRAM (SAP) INFORMATION
- ☐ g. NORTH ATLANTIC TREATY ORGANIZATION (NATO) INFORMATION
- ☐ h. FOREIGN GOVERNMENT INFORMATION
- ☐ i. ALTERNATIVE COMPENSATORY CONTROL MEASURES (ACCM) INFORMATION
- ☒ j. CONTROLLED UNCLASSIFIED INFORMATION (CUI)
(See instructions.)
- ☐ k. OTHER (Specify) (See instructions.)

11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL: (X all that apply. See instructions. Provide details in Blocks 13 or 14 as set forth in the instructions.)

- ☐ a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY
(Applicable only if there is no access or storage required at contractor facility. See instructions.)
- ☐ b. RECEIVE AND STORE CLASSIFIED DOCUMENTS ONLY
- ☒ c. RECEIVE, STORE, AND GENERATE CLASSIFIED INFORMATION OR MATERIAL
- ☐ d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE
- ☐ e. PERFORM SERVICES ONLY
- ☐ f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES
- ☒ g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER
- ☐ h. REQUIRE A COMSEC ACCOUNT
- ☐ i. HAVE A TEMPEST REQUIREMENT
- ☐ j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS
- ☐ k. BE AUTHORIZED TO USE DEFENSE COURIER SERVICE
- ☐ l. RECEIVE, STORE, OR GENERATE CONTROLLED UNCLASSIFIED INFORMATION (CUI).
(DoD Components: refer to DoDM 5200.01, Volume 4 only for specific CUI protection requirements. Non-DoD Components: see instructions.)
- ☐ m. OTHER (Specify) (See instructions.)

12. PUBLIC RELEASE

Any information (classified or unclassified) pertaining to this contract shall not be released for public dissemination except as provided by the National Industrial Security Program Operating Manual (NISPOM) or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for review and approval prior to release to the appropriate government approval authority identified here with at least office and phone contact information and if available, an e-mail address. (See instructions)

☐ DIRECT☒ THROUGH (Specify below)

Office of Naval Research
One Liberty Center, 875 N. Randolph Street, Arlington, VA 22203

Public Release Authority:

Jeff Bradel; (703) 588-2552; jeff.bradel@navy.mil

13. SECURITY GUIDANCE

The security classification guidance for classified information needed for this effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended.

(Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. The field will expand as text is added. When removing any expanded text area, use delete key or backspace key, then click out of the text field for it to shrink after the text has been deleted. Also allows for up to 6 internal reviewers to digitally sign. See instructions for additional guidance or use of the fillable PDF.)

**** Any classified information generated in the performance of this Other Transaction for Prototype Agreement (OTA) shall be classified according to the markings shown on the source material. Further classification guidance will be provided as necessary by the Program Officer.**

-OPNAVINST 3811.1F, Threat Support to the Defense Acquisition System of 16 May 2016

-OPNAVINST 3880.6A, Scientific and Technical Intelligence Liaison Officer (STILO) Program and Intelligence Support for the Naval Research, Development, Test and Evaluation, and Acquisition Communities, of 05 Nov 07

-DoD M-5200.01 Volume 4, DoD Information Security Program: Controlled Unclassified Information (CUI) of 2/24/2012

Further classification guidance will be provided as necessary by the Program Officer.

*The contractor will follow all the required policies and procedures as written in the National Industrial Security Program Operating Manual (NISPOM) dated Feb. 28, 2006, to include Change 2 dated May 18, 2016.

The following files have been provided to support the Armored Reconnaissance Vehicle (ARV) FNC proposal development:

- 1) CUI/FOUO file called: ARV_Attributes_20180319.docx
- 2) CUI/FOUO file called: ARV_MissionProfile_20180319c.docx
- 3) SECRET file called: (U) ARV_Attributes_Classified_Annex_20180216

- Item 10.e (2): Access to Non-SCI information requires a need-to-know and a final U.S. Government clearance commensurate with the level of this contract. Prime contractor shall submit a written request to release Intelligence Information to the official listed in Item 17.a

- Item 11(c): Only IS's approved by DSS shall be used to generate classified information.

- Item 11(g): Contractor shall prepare and process DD forms 1540 and 2345 prior to requesting these services.

1. Document preparation and distribution shall be only as prescribed by the Program Officer.
2. Forward copies of any subcontractor DD254's issued incident to this contract to the official shown in item 17.a below.
3. To obtain documentation/information submit requests to official listed in 17.a on DD254.
4. The attached FOUO/Controlled Unclassified Information (CUI) and Intelligence Information Sheet are hereby made a part of this DD 254.

Program Officer: Jeff Bradel, ONR Code 33
Office of Naval Research
One Liberty Center
875 N. Randolph Street
Arlington, VA 22203-1995
(703) 588-2552; jeff.bradel@navy.mil

List of Attachments (All Files Must be Attached Prior to Signing, i.e., for any digital signature on the form)

NAME & TITLE OF REVIEWING OFFICIAL

SIGNATURE

14. ADDITIONAL SECURITY REQUIREMENTS

Requirements, in addition to NISPOM requirements for classified information, are established for this contract.

☒ No ☐ Yes

*If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the CSO. The field will expand as text is added or you can also use Item 13. When removing any expanded text area, use delete key or backspace key, then click out of the text field for it to shrink after the text has been deleted.
(See instructions for additional guidance or use of the fillable PDF.)*

15. INSPECTIONS

Elements of this contract are outside the inspection responsibility of the CSO.

☒ No ☐ Yes

*If Yes, explain and identify specific areas and government activity responsible for inspections. The field will expand as text is added or you can also use Item 13. When removing any expanded text area, use delete key or backspace key, then click out of the text field for it to shrink after the text has been deleted.
(See instructions for additional guidance or use of the fillable PDF.)*

16. GOVERNMENT CONTRACTING ACTIVITY (GCA) AND POINT OF CONTACT (POC)

a. GCA NAME

Office of Naval Research

c. ADDRESS (Include ZIP Code)

875 N. Randolph Street, Suite 624
Arlington, VA 22203

d. POC NAME

Valarie Hall

b. ACTIVITY ADDRESS CODE (AAC) OF THE CONTRACTING OFFICE (See Instructions)

N00014

e. POC TELEPHONE (Include Area Code)

+1 (703) 696-0690

f. EMAIL ADDRESS (See Instructions)

valarie.hall@navy.mil

17. CERTIFICATION AND SIGNATURES

Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below. Upon digitally signing Item 17h, no changes can be made as the form will be locked.

a. TYPED NAME OF CERTIFYING OFFICIAL (Last, First, Middle Initial) (See Instructions) Woodfolk, Torri D.	d. AAC OF THE CONTRACTING OFFICE (See Instructions) N00014	h. SIGNATURE Digitally signed WOODFOLK by K.TORRI.D WOODFOLK.T ORRI.DANIEL ANIELLE.1 LE.1383982894 383982894 Date: 2019.05.17 13:48:36 -04'00'
b. TITLE Contracting Officer for Security Matters	e. CAGE CODE OF THE PRIME CONTRACTOR (See Instructions.)	i. DATE SIGNED (See Instructions) 20190517
c. ADDRESS (Include ZIP Code) Office of Naval Research, 0543 One Liberty Center, 875 N. Randolph Street Arlington, VA 22203-1995	f. TELEPHONE (Include Area Code) +1 (703) 696-8177 g. EMAIL ADDRESS (See Instructions) torri.powell@navy.mil	

18. REQUIRED DISTRIBUTION BY THE CERTIFYING OFFICIAL

- | | |
|--|---|
| <input checked="" type="checkbox"/> a. CONTRACTOR | <input checked="" type="checkbox"/> f. OTHER AS NECESSARY (If more room is needed, continue in Item 13 or on additional page if necessary.) |
| <input type="checkbox"/> b. SUBCONTRACTOR | ONR 33, 25, 0543 |
| <input checked="" type="checkbox"/> c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR | |
| <input type="checkbox"/> d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION | |
| <input checked="" type="checkbox"/> e. ADMINISTRATIVE CONTRACTING OFFICER | |

INTELLIGENCE INFORMATION SHEET

1. The material does not become the property of the contractor and may be withdrawn at any time. Upon expiration of the contract, all intelligence released and any material using data from the intelligence will be returned to the releasing contracting command or activity [Chief of Naval Research (ONR 43)] for final disposition unless retention is authorized. The contracting command or activity [Chief of Naval Research (ONR 43)] will provide a copy of the retention authorization to ONI-5.
2. Contractors will not release the intelligence material to any activity or person of the contractor's organization not directly engaged in providing services under the contract or to another contractor (including sub-contractors), government agency, private individual, or organization without prior approval of the originator of the material, as outlined in governing directives, and prior approval and certification of need-to-know by the designated project manager/contract sponsor [Chief of Naval Research (ONR 43)].
3. Intelligence material will not be released to foreign nationals or immigrant aliens who may be employed by the contractor, regardless of the level of their security clearance or access authorization, except with the specific permission of ONI-5 requested via the Chief of Naval Research (ONR 43).
4. Intelligence material will not be reproduced without prior approval of the originator. All intelligence material shall bear a prohibition against reproduction while in the custody of the contractor.
5. Contractors will maintain records which will permit them to furnish, on demand, the names of individuals who have access to intelligence material in their custody.

CONTROLLED UNCLASSIFIED INFORMATION (CUI) ADDENDUM

1. General: In addition to classified information, certain types of unclassified information also require application of access and distribution controls and protective measures for a variety of reasons. Such information is referred to collectively as Controlled Unclassified Information (CUI). This CUI Addendum identifies the controls and protective measures developed for DoD CUI (i.e., For Official Use Only (FOUO)).

a. For Official Use Only (FOUO): FOUO is a dissemination control applied by the Department of Defense to unclassified information when disclosure to the public of that particular record, or portion thereof, would reasonably be expected to cause a foreseeable harm to an interest protected by one or more of Freedom of Information Act (FOIA) Exemptions 2 through 9, DoD 5400.7-R, and the Privacy Act of 1974, as amended.

2. CUI Markings: Prescribed marking of CUI documents and other media containing CUI will be in accordance with DoDM 5200.01, Volume 4.

3. Access to CUI: No person may have access to information designated as CUI unless that person has been determined to have a valid need for such access in connection with the accomplishment of a lawful and authorized Government purpose. Refer to DoDM 5200.01 Volume 4 for specific access requirements for each type of CUI.

4. Protection of CUI: During working hours, reasonable steps shall be taken to minimize the risk of access by unauthorized personnel (e.g., not reading, discussing, or leaving CUI material unattended where unauthorized personnel are present). After working hours, CUI may be stored in unlocked containers, desks, or cabinets if Government or Government-contract building security is provided. If such building security is not provided or is deemed inadequate, the information shall be stored in locked desks, file cabinets, bookcases, locked rooms, etc. Refer to DoDM 5200.01 Volume 4 for specific requirements for each type of CUI.

5. Dissemination of CUI: Each category of CUI has specific requirements for how that information can be disseminated via mail, e-mail, posted on websites, etc. Refer to DoDM 5200.01, Volume 4 for specific requirements for how each type of CUI can be disseminated.

6. Destruction of CUI: CUI material shall be disposed of according to the provisions of DoDM 5200.01, Volume 4. Any method approved for the destruction of classified can be used to destroy CUI.

7. Unauthorized Disclosure of CUI: Unauthorized disclosures of CUI information does not constitute a security violation however, appropriate management action shall be taken to fix responsibility for unauthorized disclosure of CUI whenever feasible or required by other guidance. Appropriate disciplinary action shall be taken against those responsible. Unauthorized disclosure of some CUI, e.g., information protected by "The Privacy Act of 1974, as amended" or export-controlled technical data may also result in civil and criminal sanctions against responsible persons. All unauthorized disclosures of CUI will be immediately reported to the Security Manager of the Government Agency sponsoring the contractor.